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ABSTRACT

This annual report outlines the activities of the Pennsylvania Council on Vocational Education for the year 1987-88 and provides an overview of the status of vocational education in the state. The activities of the council included public meetings on vocational education, a review of the use of federal vocational education funds in the state, a study of the vocational education delivery system, recommendations to the State Board of Education, and compliance reviews for vocational education institutions. The overview of the status of vocational education in Pennsylvania reports programs offered, enrollment, adult vocational enrollment, student organizations, expenditures, special populations, mainstreaming, job placement, earnings of graduates, and job training programs for employers. A special section in the center of the report profiles successful vocational education programs throughout the state. (KC)

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1988 Nineteenth Annual Report

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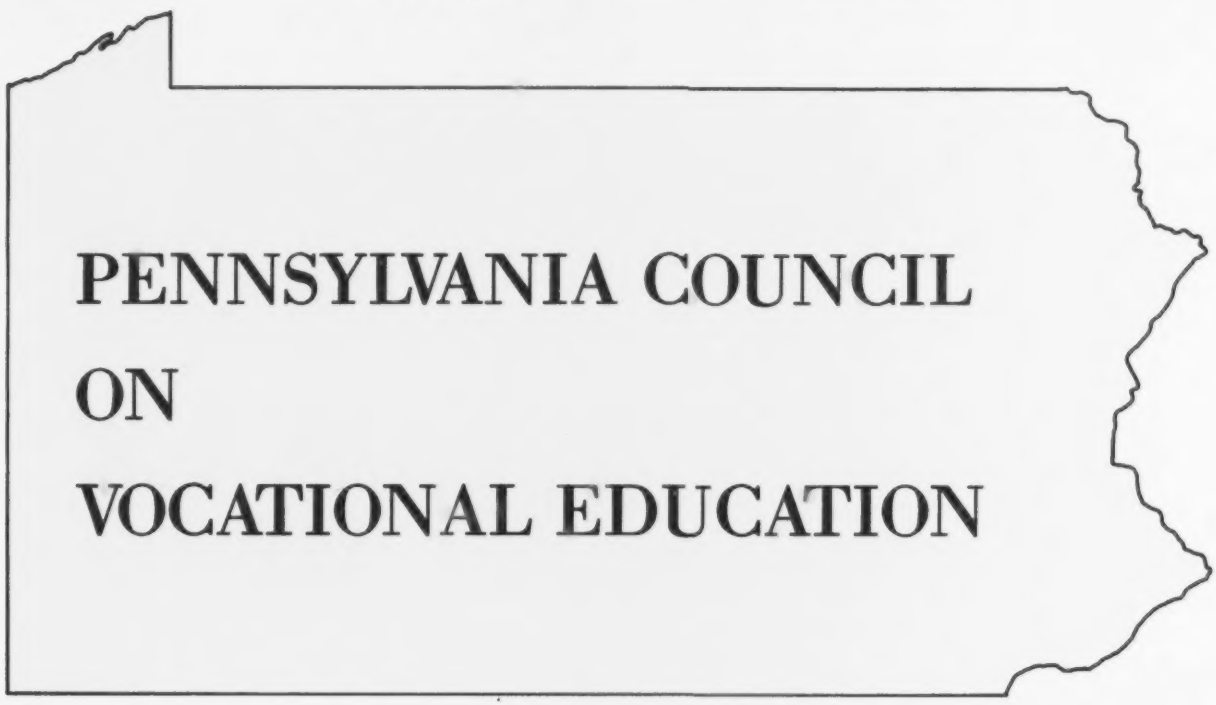

PENNSYLVANIA COUNCIL ON VOCATIONAL EDUCATION

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Commonwealth of Pennsylvania

Robert P. Casey, Governor

Pennsylvania State Board of Education

Sister M. Lawreace Antoun, Interim Chairperson and Chairperson of the Council on Higher Education
Donald W. Fox, Chairperson of the Council of Basic Education

Pennsylvania Council on Vocational Education

Karl G. Brown, Chairman
Myron A. Crumrine, Vice-Chairman
Susan M. Garber, Financial Secretary
Dennis P. Rhen, Executive Director
Susan Dean, Administrative Secretary

Department of Education

Thomas K. Gilhool, Secretary of Education

Office of Basic Education

Donna D. Wall, Commissioner

Office of Higher Education

Charles R. Fuget, Commissioner

Bureau of Vocational and Adult Education

Jacqueline L. Cullen, Director

TABLE OF CONTENTS

Page

Letter from the Chairman of PACVE ii

Letter from the Governor iii

Letter from the Director, Bureau of Vocational and Adult Education iv

Representative William F. Goodling Receives National Award vi

The Pennsylvania Council on Vocational Education 1

Responsibilities 2

Activities 2

Public Meetings on Vocational Education 4

A Review of the Utilization of Federal Vocational Education Funds in Pennsylvania 6

The Vocational Education Delivery System 7

Recommendations to the State Board of Education 8

On-Site Compliance Review for Vocational Education Institutions 11

Centerfold: Vocational Program Highlights 13

Map of Public Institutions Offering Vocational Education Programs in Pennsylvania 18

Status of Vocational Education in Pennsylvania

Vocational Education in Pennsylvania is Offered in 800 Institutions 25

The Decline in the Percent of High School Students Enrolled in Vocational Education Continues 26

Vocational Education Programs in Pennsylvania Show a Continuing Decline in Enrollments 27

Postsecondary Vocational Education Enrollments Declined Slightly in 1986-87 28

Adult Vocational Education Enrollments Increased Slightly in 1986-87 29

Full-time Equivalent Enrollments of Secondary Students in Pennsylvania's Area Vocational-Technical Schools Declined from 1986-88. Enrollments for Adults Increased 30

Vocational Student Organizations Show a Slight Decrease in Members 35

Vocational Education Expenditures Increase in 1986-87 35

Vocational Education Special Populations Enrollments Declined 36

Most Secondary Vocational Education Special Needs Students Are Mainstreamed Into Regular Programs 36

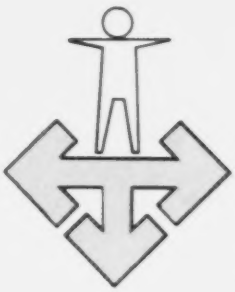
More Than 90 Percent of Secondary Vocational Education Graduates Were Successfully Placed 37

Adult Vocational Education Completers Achieved Successful Placement Rate of More Than 80 Percent 38

Earnings of Employed Vocational Education Completers Vary by Sex, Level and Program Area 39

More Than 13,000 JTPA Clients Received Education Services 40

Customized Job Training Program Provided Training for 156 Employers 42



PENNSYLVANIA COUNCIL
ON VOCATIONAL EDUCATION

SUITE 202, HARRISBURG TRANSPORTATION CENTER
415 MARKET STREET, HARRISBURG, PENNSYLVANIA 17101-2302
(717) 232-7653

Dear Fellow Citizens:

On behalf of the 1987-88 members of the Pennsylvania Council on Vocational Education, I am pleased to present the 1988 Annual Report.

Featured in this Report are the past year's activities of the Council and the recommendations of the Council to the State Board of Education. Also contained are descriptions of new or innovative programs offered by the vocational education institutions in the State. Summaries of the Compliance Reviews conducted by the Pennsylvania Department of Education and the utilization of federal funds for vocational education in the Commonwealth are presented as well as a statistical "status report."

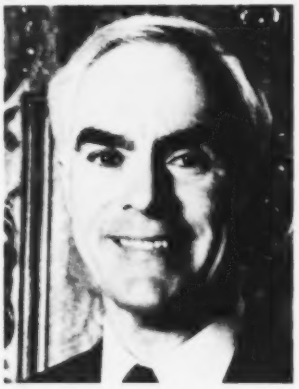
PACVE hopes that the Annual Report will be informative and will contribute to your understanding of the Council and the vocational education system in Pennsylvania.

Sincerely,

Karl G. Brown

Karl G. Brown
Chairman

COMMONWEALTH OF PENNSYLVANIA
OFFICE OF THE GOVERNOR
HARRISBURG



THE GOVERNOR

GREETINGS:

More than ever before, effective vocational education programs are essential to the Commonwealth's continuing economic recovery.

Vocational educators not only prepare students for a successful transition into the working world, they also provide advanced technical training to men and women already in the work force.

Today, vocational education's main challenge is to ensure that students and workers keep pace with the rapidly changing demands of our technology-based economy.

For that reason, I am asking the State Board of Education to issue, for the first time, regulations creating post-secondary trade and technical schools to provide the training -- and retraining -- our workers need to remain competitive.

I congratulate the Council on Vocational Education for its vital contribution to our economic development, and extend my best wishes as we work together to build the Pennsylvania of tomorrow.

Sincerely,

Robert Casey

Robert P. Casey
Governor

COMMONWEALTH OF PENNSYLVANIA
THE GOVERNOR

6

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF EDUCATION
333 MARKET STREET
HARRISBURG, PA 17126-0333

Dear Citizens:

As an integral part of Pennsylvania's education system, vocational education must provide students with essential and advanced knowledge and skills. By developing acceptable levels of knowledge and skills, individuals can achieve economic independence and satisfy the human resource needs of employers.

A key component in Governor Casey's Investment in Pennsylvania's Future is the development and maintenance of a "skilled and adaptable work force - the ability of the workforce to meet the changing needs of industry." A vocational education system that invests in people and seeks to alleviate barriers to education and employability requires change. This means change in the way problems are addressed, change in actions of state government, change in the structure of educational delivery systems and change in the resources that are allocated.

The entire education system, including vocational education, must plan and develop programs cooperatively, not competitively. Moreover, our educational system must implement approaches to keep the students in school, particularly at-risk students.

Academic and vocational teachers and curriculum experts need to redesign curriculum and instructional methods for the purpose of integrating basic academic skills and vocational skills. Broad-based secondary vocational education should be developed to ensure transferability of skills and adaptability to changing work requirements throughout a career.

The education system, of which vocational education is a part, cannot act alone. Federal, state and local units of government, schools, the private sector, the community, social agencies and families need to accept the challenge. By developing collaboration among entities, education can increase the investment in Pennsylvania's human capital - the people.

The success of economic development activities depends on the planning, coordination, flexibility, and cooperation among representatives of private sector, government and education in each community. Effective state leadership coupled with comprehensive strategic planning for vocational education is essential. Simply stated, those involved with the vocational education and job training system need to (1) become aware, (2) get organized and (3) share the challenges.

The Pennsylvania 1988-90 Comprehensive State Plan for Vocational Education provides a long-range vision and identifies the following goals to respond to the dramatically changing work environment.

7

(1) Promote adjustments in the vocational education delivery system that are responsive to identified needs of youth, adults and employers.

(2) Clarify and support the respective roles and functions of secondary education, adult education, and higher education, especially community colleges, within the vocational education delivery system.

(3) Improve opportunities for all segments of the population to participate in vocational education programs and services and to develop to their full potential.

(4) Develop vocational education programs and services that are responsive to students' and employers' identified needs.

(5) Provide sufficient competent staffing to operate a multifaceted state program of vocational education.

(6) Manage the state vocational education delivery system in accordance with the vocational education philosophy and beliefs of the State Board of Education.

Vocational education can address this changing work environment by providing individuals with skills and knowledge to be economically self-sufficient, and by supplying employers with the skilled workers they need to remain competitive. We believe the above-mentioned goals provide the framework to guide our efforts.

The support provided by the Pennsylvania Council on Vocational Education is a vital link in the improvement and development of a quality vocational education system. The Council's substantive input will continue to be an important part of our continuing efforts to provide a productive workforce through a superior educational system.

Sincerely,

Jacqueline L. Cullen

Jacqueline L. Cullen
Director
Bureau of Vocational and Adult Education

United States Representative William F. Goodling Receives National Award

Representative William F. Goodling, who represents Pennsylvania's 19th Congressional District, received the 1988 Carl D. Perkins Award on May 7, 1988 in San Francisco. The Award recognizes outstanding contributions to vocational education by an elected United States official and is presented annually by the National Association of State Councils on Vocational Education (NASCOVE).

Representative Goodling was influential in securing passage of the 1984 Carl D. Perkins Vocational Education Act. He guided the bill through the House and the Conference Committee with the Senate after the death of Carl D. Perkins in late 1983. Goodling serves on the Education and Labor Committee, and is the Ranking Minority Member of the Elementary, Secondary and Vocational Education Subcommittee of the United States House of Representatives. He is a former teacher and school district superintendent.

The Award was presented to Representative Goodling by Gordon Ropp, President of NASCOVE, who praised Goodling's "leadership, support and dedication to the many citizens, young and old, who have benefited from vocational education."

Representative William F. Goodling
Pennsylvania, 19th Congressional District
United States House of Representatives

Gordon Ropp, (r), President of the National Association of State Councils on Vocational Education, presents William F. Goodling with the 1988 Carl D. Perkins Award.

THE PENNSYLVANIA COUNCIL ON VOCATIONAL EDUCATION

In 1987–88, the Pennsylvania Council on Vocational Education conducted its third full year of activities under the Carl D. Perkins Vocational Education Act (PL 98-524). Thirteen individuals, appointed by the Governor, comprised the membership; seven members represented the private sector and six members represented education. Two private sector members represented organized labor. Career guidance and counseling organizations were represented on Council.

The 1987–88 members of Council were:

Karl G. Brown (Chairman), Director of Local Affairs, Pennsylvania Farmers Association, Camp Hill

Myron A. Crumrine (Vice-Chairman), Manager of Engineering, Zippo Manufacturing Company, Bradford

Susan M. Garber (Financial Secretary), Small Business Development Centers, Wharton School, University of Pennsylvania, Philadelphia

Dr. Charles M. Cohen, Coordinator, Project Liaison, Pittsburgh School District, Pittsburgh

Max D. Gill, Executive Director, Private Industry Council, Erie

Dr. Edwin L. Herr, Professor and Head, Division of Counseling and Education Psychology and Career Studies, The Pennsylvania State University, University Park

Dr. Marion B. W. Holmes, Executive Director, Career and Vocational Education, School District of Philadelphia, Philadelphia

Bernice K. Jenkins, EEO Officer/Safety Coordinator, Trumbull Corporation, Pittsburgh

Dr. Kenneth A. Miller, President, Pennsylvania Institute of Technology, Media

Thomas W. O'Brien, Director, Center for Vocational Personnel Preparation, Indiana University of Pennsylvania, Indiana

Henry F. Plummer, Jr., Training Coordinator, Steamfitters' Local Union 420, Philadelphia

Ardemis S. Roy, Owner, Arde's Financial and Accounting Service, King of Prussia

Glenn A. Schaeffer, Business Manager, Local Union No. 143 IBEW, Harrisburg

Karl G. Brown

Myron A. Crumrine

Susan M. Garber

Dr. Charles M. Cohen

Max D. Gill

Dr. Edwin L. Herr

Dr. Marion B. W. Holmes

Bernice K. Jenkins

Dr. Kenneth A. Miller

Thomas W. O'Brien

Henry F. Plummer, Jr.

Ardemis S. Roy

Glenn A. Schaeffer

Responsibilities

The Pennsylvania Council on Vocational Education has been given certain responsibilities by the Vocational Education Act of 1984. These responsibilities are:

- conduct at least one public meeting each year at which the public is given an opportunity to express views concerning the vocational education program of the state.
- meet with the State Board of Education to advise on the State Plan for Vocational Education.
- review and comment on the State Plan prior to its submission to the United States Secretary of Education.
- advise the State Board of Education and make reports to the Governor, the business community and the general public of the state concerning:
  1. policies the state should pursue to strengthen vocational education (with particular attention to programs for the handicapped); and,
  2. initiatives and methods the private sector could undertake to assist in the modernization of vocational education programs.
- analyze and report on the distribution of spending for vocational education in the state.
- analyze and report on the availability of vocational education activities and services within the state.
- furnish consultation to the State Board of Education on the establishment of evaluation criteria for vocational education programs within the state.
- submit recommendations to the State Board on the conduct of vocational education programs conducted in the state which emphasize the use of business concerns and labor organizations.
- assess the distribution of financial assistance furnished under the Vocational Education Act, particularly with the analysis of the distribution of financial assistance between secondary and postsecondary vocational education programs.
- recommend procedures to the State Board to ensure and enhance the participation of the public in the provision of vocational education at the local level within the state, particularly the participation of local employers and local labor organizations.
- report to the State Board on the extent to which special populations are provided with equal access to quality vocational education programs.
- evaluate at least once every two years the vocational education program delivery systems assisted under this Act, and under the Job Training Partnership Act, in terms of their adequacy and effectiveness in achieving the purposes of each of the two Acts.
- make recommendations to the State Board on the adequacy and effectiveness of the coordination that takes place between vocational education and the Job Training Partnership Act.
- advise the Governor, the State Board, the State Job Training Coordinating Council, the Secretary of Education and the Secretary of Labor of these findings and recommendations.
- consult with the State Board on the development of model curricula to address state labor market needs. Technical committees are to develop an inventory of skills that may be used by the State Board to define state-of-the-art model curricula.

The Pennsylvania Council on Vocational Education, through its various activities, has addressed and met each of these responsibilities.

Activities

In 1987-88, the members and staff of the Pennsylvania Council on Vocational Education conducted a variety of activities to fulfill the responsibilities of the Carl D. Perkins Vocational Education Act of 1984. The Council also performed other activities not specifically assigned to it by federal law, but which were performed in the interest of strengthening vocational education in Pennsylvania.

PACVE

- adopted seven recommendations for presentation to the State Board of Education. These recommendations addressed:
  1. coordination of programs to permit students to meet graduation requirements while pursuing vocational education.
  2. modification of program hour requirements.
  3. career awareness.
  4. local 50-50 match requirements for disadvantaged funds.
  5. integration of programs and services at several levels of program delivery.
  6. expansion of postsecondary vocational education to areas not served.
  7. local level staff development.
- updated, published and distributed handbooks for local and occupational advisory committees.
- formally presented PACVE's 1986-87 recommendations to the State Board of Education.
- prepared, published and disseminated four issues of PACVE Update, a publication devoted to reporting on PACVE activities and matters of interest in vocational education.

- published a brochure identifying Council members and Council responsibilities.
- made presentations to local advisory committees and to educational organizations on vocational education.
- conducted, in cooperation with the State Board of Education, a public hearing on vocational education.
- attended Department of Education sponsored workshops on evaluation, inservice, and conducting compliance reviews for secondary vocational education programs.
- represented Pennsylvania at national conferences, participating in committee meetings and other activities.
- attended State Job Training Coordinating Council meetings.
- attended the Northeast Region conference of the National Association of State Councils on Vocational Education (NASCOVE).
- submitted testimony on the provision of vocational education to handicapped students to the Education Committee of the State House of Representatives.
- attended Vocational Administrators of Pennsylvania Executive Committee meetings and RAP sessions.
- attended and participated in activities of the National Association of State Councils on Vocational Education/American Vocational Association.
- nominated a member of the Pennsylvania delegation to the United States House of Representatives for the NASCOVE Carl D. Perkins Award.
- submitted an article for publication in a professional journal.
- attended committee meetings of the Capital Area Regional Planning Unit.
- established and conducted a search for an "Outstanding Advisory Committee."
- represented Pennsylvania at the American Vocational Association (AVA) National Policy seminar in Washington, D.C.
- prepared written comments regarding the State Plan for Vocational Education for submission to the Bureau of Vocational and Adult Education.
- presented workshops at the Pennsylvania Vocational Education Conference.
- maintained liason with various educational, governmental and business organizations.

Public Meeting on Vocational Education

On January 19, 1988, the Pennsylvania Council on Vocational Education and the State Board of Education jointly sponsored a public meeting in Harrisburg on vocational education issues. Thirty-one persons, either in person or through written presentations, made comments on vocational education during this process, some addressing more than one topic.

PACVE utilized the information gathered at the public meetings in its evaluation of vocational education programs in Pennsylvania and in developing its recommendations to the State Board of Education, the Governor and the Secretary of Education.

The following points are representative of the testimony presented:

Broad Purpose of Vocational Education/General Comments

1. Vocational educators have an important contribution to make in improving basic academic skills of students. Therefore, vocational education should be viewed and promoted as an effective delivery system for both academic and vocational skills training.
2. Vocational education must be viewed as part of the total process of preparing for employment.
3. A better job of promotion of vocational education must be done so that the public takes advantage of all the opportunities available.
4. The goals of the Curriculum and Vocational Education Regulations must be re-examined so that vocational education is an appropriate educational choice for secondary students.
5. All Pennsylvania high school students should be provided specific information regarding the opportunities in vocational education.
6. Industrial Arts/Technology Education offerings beginning at the junior high level are logical programs to fill the pre-vocational need for at-risk students. Funding should be provided to keep this program component in place.
7. Useful or nonoccupational programs (such as Home Economics) within the comprehensive high school should be included in all aspects of vocational planning.
8. Alternative methods of providing vocational education to rural students and homebound students should be explored.

General Funding

1. A better mechanism for financing community-needs based education (including adult education) must be found. Current financing through the secondary programs is inadequate.
2. There must be an increase in the per student reimbursements for secondary students.
3. Stipends for regional planning should be tied to evidence of cooperative regional planning appropriate to the region.
4. The State should continue to support and facilitate the acquisition and upgrading of instructional equipment required to support the delivery of quality programming.

Programming/Curriculum

1. Clustering of various occupational areas for training should not eliminate specific skill training but should enhance it with multi-occupational skills.
2. More emphasis should be placed on career education and guidance at the junior high level.
3. A statewide curriculum for home economics must be developed.
4. The State should promote a vocational education long-range planning process founded on statewide needs assessment, multi-agency action planning and supported by regional needs assessments, implementation and evaluation.
5. The State Plan should include a method for focusing on those communities in which exemplary programs have not yet been developed, and some methods by which the State will encourage and assist in their development.
6. The State's program evaluations should include an examination to find out where success is being achieved in the areas of basic skills, problem solving and development of flexibility.
7. The State Plan should include a provision of assistance to those communities that need help in meeting Perkins Act requirements for individual assessment and special services.
8. The State Plan should provide for uniform and routine enforcement of Perkins Act requirements statewide.

Personnel

1. There should be adequate staffing of the Bureau of Vocational and Adult Education.
2. A comparison of staffing with other states should be conducted.
3. The Commissioner of Vocational Education post should be created and filled as quickly as possible.
4. The Home Economics Advisor position within the Bureau of Vocational and Adult Education should be filled as soon as possible.
5. Leadership must be provided at the State level for vocational student organizations.
6. An affirmative effort to increase the numbers of women and minority vocational school administrators must be made.
7. Vocational educators should actively support state efforts to improve the quality of beginning teachers by seeking ways to support higher standards while recognizing the uniqueness of trade and industrial teacher preparation.
8. Skilled workers from Southwestern Pennsylvania should be retrained to fill vocational education teacher vacancies in Southeastern Pennsylvania.

Special Needs Populations

1. A grades 7-12 and postsecondary vocational education plan should be developed and followed for each special needs student.
2. The school-to-work transition plan should be developed cooperatively by Special Education, Vocational Education and the Office of Vocational Rehabilitation.
3. Chapter 6 requirements would eliminate many programs for trainable mentally retarded (TMR) students. Therefore, the Chapter 6 requirements must be changed to accommodate individual plans.
4. A K-12 career education program should be developed for special needs students with vocational education as an important component. Career development should follow the planned sequence of awareness, exploration and experience.

Postsecondary Education/Articulation

1. Vocational schools must be given technical institute status.
2. Any current procedures that discourage cooperative efforts or that encourage duplication of secondary/postsecondary programming must be eliminated.
3. Stipends for successful student transfer between cooperating institutions at various levels should be a part of the funding mechanism for the institutions.
4. The State Plan should include plans and funds to stimulate the growth of a 2 + 2/Tech Prep program between secondary and postsecondary institutions.
5. The Pennsylvania Department of Education should develop wide curriculum support services and teachers should have the opportunity to structure curriculum to meet the individual needs of those in institutions (offenders).
6. The State should coordinate an effort to teach educational skills, vocational trades and social skills that will benefit institutionalized offenders and assist with job placement.

Review of the Utilization of Federal Vocational Education Funds in Pennsylvania

As part of the development process for the 1988-90 State Plan for Vocational Education, the Department of Education conducted a review of the achievement of goals in the 1986-88 Plan.

A brief overview of the results and accomplishments of those programs and activities for 1986-87, which are related to the three sections of the Carl D. Perkins Vocational Education Act and the goals and objectives defined in the 1986-88 State Plan, follows.

Title II, Part A

Special Needs Populations

Nearly 30 percent (29.4) of all secondary level special needs students received additional vocational education assistance through their participation in projects supported by federal vocational funds.

Single Parents and Homemakers

Adult

Of the 3,551 single parents and homemakers who entered the career guidance and counseling program, the majority (2,706 clients) were jobless, and the remainder were underemployed.

Seventy-two percent of the single parents and homemakers who received services benefitted by either obtaining job training or employment.

School-age Youth

Twenty-one projects funded at $670,721 provided instructional programs in nutrition, child care and development, parenting and management of resources. Programs and activities were specifically designed to benefit teen parents and prospective teen parents. Approximately 2,688 teen parents benefitted from these programs and activities.

Criminal Offenders in Correctional Institutions

A total of 837 inmates at the adult correctional institutions participated in programs and activities focusing on occupationally specific training, vocational counseling, assessment and job placement activities. A job placement program placed 116 adult inmates in jobs upon their release from prison.

Four vocational education projects, funded at $211,143, served 466 inmates in juvenile institutions.

Adults in Need of Training and Retraining

A total of $8,834,538 in federal vocational education funds was directed to adult/postsecondary programs to provide enrollment opportunities for 24,632 adults.

Nearly 13 percent of the adult enrollees were in adult farmer programs, which are intended to increase the efficiency and productivity of Pennsylvania farmers.

Approximately 900 unemployed or underemployed individuals were provided with opportunities for quick-response, short-term, industry-driven programs with high employment potential.

Title II, Part B

Dropout Prevention Programs

The State spent almost $1 million to support two major program areas—prevention and reentry.

Twenty-five projects provided services and activities to 4,700 students.

Personnel Development

The occupational competency of 366 teacher candidates was assessed. Field-based programs served 480 vocational teachers.

Sixty vocational administrators were served in a field-based internship component of a leadership development program.

Seventy candidates for certification were provided with the opportunity to satisfy occupational work experience needs.

Sixty workshops and seminars were conducted.

Nine workshops provided updating in computer-assisted drafting, computer graphics, high technology in agriculture, dental assisting skills, computer applications in the classroom, electronic office training for business teacher educators, robotics, and auto body technology.

Curriculum Development

Federal funds supported 116 curriculum development projects. These funds were used (1) to develop competency-based vocational education (CBVE) curriculum to meet unmet needs; (2) to utilize and adapt existing competency-based curriculum; and (3) to provide dissemination and replication activities of exemplary programs.

Regional Planning

Six pilot regional planning units were established to improve coordination among educational institutions offering vocational-technical courses at the secondary, adult, and postsecondary levels as well as to improve collaboration with private sector representatives.

Consumer and Homemaking Education

A total of $659,564 supported programs in economically depressed areas to encourage the participation of the traditionally underserved populations.

The community outreach programs served a variety of age groups, including senior citizens, elderly, single parents, and secondary students not normally served in the regular home economics programs. A total of 4,225 persons participated in these programs and activities. Teen parenting programs provided 1,100 underserved youths with consumer and homemaking education in areas of child care and development, family living, parenting, nutrition and management of family resources.

Coordination Between Vocational Education and JTPA

During 1986–87, the Bureau of Vocational and Adult Education awarded 22 contracts totalling $581,028 of JTPA state education grant funds to support the cost of employment of industry/education coordinators to aid in the development of programs to match the needs of industry.

The Vocational Education Delivery System

In Pennsylvania, the vocational education delivery system is multi-faceted. Traditionally, major policy decisions are made on the state level but implementation of policies is determined by local governing agencies.

Pennsylvania's 501 school districts offer vocational programs to secondary and/or adult level students. Vocational-technical programs are also offered at the 87 area vocational-technical schools, two of which are full-time adult centers. Pennsylvania has more than 211 nonprofit postsecondary institutions offering continuing education and/or vocational-technical education programs. In addition, more than 350 licensed private career schools operate in the State. The 14 community colleges possess extensive facilities for vocational-technical training at the postsecondary level.

Federal and state funds account for about 50 percent of the replacement costs of tools and equipment. Currently, the tools and equipment being used in each vocational education agency are worth an average of $1.8 million.

Approximately $50 million in federal funds per year help supplement the state and local commitments of $550 million. In 1986–87, $35.7 million were appropriated by the State; each entitled school district and AVTS received reimbursement for students enrolled in approved vocational curricula based on average daily membership. Also during this school year, $16.5 million of federal funds supported adult and postsecondary programs; an additional $16 million were used for JTPA programs.

Source: Bureau of Vocational and Adult Education, Pennsylvania Department of Education

Recommendations to the State Board of Education

The Pennsylvania Council on Vocational Education adopted seven recommendations on vocational education at its June, 1988 meeting in Lancaster. The adopted recommendations were based on Council members' expertise, staff research, consultations with informed persons and public comments made at public hearings on vocational education. PACVE addressed the recommendations to the State Board of Education, Pennsylvania Department of Education, Governor, local education administrators and the general public.

Recommendation I—Coordinated Programming

The Pennsylvania Council on Vocational Education is concerned that some students who could benefit from vocational education are not enrolling in vocational education programs because of scheduling difficulties. In some cases these difficulties have arisen as a result of implementation of the State Board of Education's Curriculum Regulations. These regulations, which became effective in the 1985-86 academic year, among other features, increased the number of credits required for graduation. The increase in the number of credits required for graduation, and the specificity of such credit requirements, have made it more difficult for students to schedule vocational education programs concurrent with meeting academic credit requirements.

The impact of these requirements can be seen in the decline in the percentage of students enrolled in approved vocational education programs. In 1984-85, 48 percent of the students in grades 10-12 were enrolled in vocational education; in 1986-87, the last year for which data is available, 41 percent of the secondary students were enrolled in vocational education programs.

PACVE believes that it is essential for all students, including vocational education students, to meet the standards established by the State Board of Education for graduation. Success in employment requires not only occupational skills proficiency, but, increasingly, basic academic skills proficiency as well. Other graduation requirements, while not directly related to employment, nevertheless enhance personal credit requirements for graduation without sacrificing access to a vocational education program.

For many individuals, secondary level vocational education provides the only realistic opportunity to prepare for successful entry into the labor force. This opportunity must be preserved. PACVE believes that the Pennsylvania Department of Education should assist local education agencies to find ways to enable their students to have access to vocational education programs and to meet their graduation requirements.

Therefore,

The Pennsylvania Council on Vocational Education recommends to the State Board of Education that the Pennsylvania Department of Education assist local education agencies to develop policies and procedures to enable students to complete a vocational education program and to meet graduation requirements.

Recommendation II—Variable Length Programming

The State's Vocational Education Regulations for secondary vocational education programs mandate a minimum number of hours of instruction for programs. These requirements are:

1 year— 720 hours
2 years— 720 hours
3 years— 1080 hours
4 years— 1320 hours

PACVE believes that occupational skills could be taught in varying time frames. For example, a different amount of time may be required for a Marketing and Distributive Education Program than for a Nurses Assistant Program. Furthermore, Council believes that individuals may be able to attain entry-level employment with varying levels of mastery within an occupational category. For example, one individual may become proficient in transmission repair, while another may master a variety of skills which are required of an "auto mechanic." The time required for successfully training the two individuals would vary. Currently the length of courses is determined more by scheduling and regulatory factors than by careful assessment of the amount of time required to master a set of skills needed for successful employment.

Consideration should be given to modifying the State's regulations concerning time requirements for approved vocational education programs. This would enable more students to have access to a vocational education program. Students who desire some vocational education preparation, but who do not wish to make a large commitment of time to such courses, could then enroll in vocational education. It would also enable students who make a late choice to secure some vocational education preparation.

In light of the problems encountered in scheduling vocational education while at the same time meeting academic credit requirements for graduation, modification of the minimum hours requirement might also enable more students to have access to vocational education programs.

PACVE notes that the premise of competency-based

instruction, which is the State mandated mode of instruction for vocational education in Pennsylvania, places its emphasis upon skill attainment, rather than the number of hours spent in a particular program.

Therefore,

PACVE recommends to the State Board of Education and the Pennsylvania Department of Education that regulations concerning the minimum number of hours required for vocational education programs be modified, so as to permit vocational programs of varying lengths and breadth to be offered.

Recommendation III—Comprehensive Career Awareness and Guidance/ Counseling

The Pennsylvania Council on Vocational Education believes there is a need for Pennsylvania to strengthen local programs in career guidance and counseling. Students are now called upon to make choices concerning their education programs with little knowledge of the "world of work," occupations, and the education and training required to enter and succeed in various occupations. Council believes that young people should be able to choose from a variety of education programs, explore various occupational alternatives, and change directions if a particular course of preparation is determined to be inappropriate.

Students' decision making, course selection and career preparation would be improved and be more efficient if students had systematic access to career information throughout their early and middle school years and on into high school. Information about occupations, employment conditions, requirements for employment, working conditions, income, training opportunities and other related information, as well as the career decision making process itself, should be made available to all students.

Therefore,

The Pennsylvania Council on Vocational Education recommends to the State Board of Education and the Pennsylvania Department of Education that they adopt, as a part of their curriculum regulations, a provision requiring that all students be provided with career awareness, guidance and counseling services from kindergarten through grade 12.

Recommendation IV—Federal Vocational Education Funds for Disadvantaged Students

The Pennsylvania Council on Vocational Education recommended, in 1986 and 1987, that the General Assembly and the Governor address the problem of utilization of federal vocational education funds for disadvantaged students. In those recommendations PACVE noted that many local education agencies are unable to make full use of such funds because of the lack of adequate local funds to meet the 50-50 match requirement of the Carl D. Perkins Vocational Education Act. At the end of fiscal year 1987-88, Pennsylvania had a carryover of approximately $6 million in this category of funds. Many economically and educationally disadvantaged students are being denied the benefits of programs and services that could be provided through the use of such funds.

Some other states have assisted their local education agencies to meet the 50-50 matching requirement for excess costs associated with providing vocational education to disadvantaged students. There is merit in such an approach, and the General Assembly and the Governor should similarly assist local education agencies to use available federal funds for disadvantaged students.

Therefore,

The Pennsylvania Council on Vocational Education recommends to the Governor and to the General Assembly that it appropriate a sum of money to assist local education agencies to meet the 50-50 match requirement for use of federal vocational education funds for disadvantaged students.

Recommendation V—Articulation

The Pennsylvania Council on Vocational Education believes there is a need to integrate and coordinate vocational education program offerings at all levels, but particularly between secondary and postsecondary levels.

In 1986, PACVE recommended that "the State Board of Education and the Pennsylvania Department of Education examine their current policies and incentives and revise them as necessary in order to increase the number of formal articulation agreements between secondary vocational education institutions and community colleges providing vocational education to enhance coordination between such levels."

PACVE reiterates its support for this recommendation.

In 1987, PACVE also supported the implementation of the Regional Education and Assessment Plan (REAP) of the Pennsylvania Department of Education.

The Department of Education has decided to terminate support for this activity at the end of June, 1988. Without calling into question the appropriateness of this decision, there continues to exist a need for cooperation and coordination among providers of vocational education and related training agencies (e.g., Service Delivery Areas of the Job Training Partnership Act).

The State Board of Education and the Pennsylvania Department of Education have commissioned a study of the vocational education system in Pennsylvania. The objectives of the study include the following:

(1) To analyze the capability of the existing system(s)

to deliver a comprehensive articulated program of vocational education to all clients in the Commonwealth of Pennsylvania.

(2) To recommend a system or alternative system(s) to improve the delivery of comprehensive articulated vocational education in the Commonwealth of Pennsylvania.

The State Board of Education and the Department of Education are to be commended for recognizing the importance of developing an articulated vocational education system. PACVE looks forward to reviewing the results of the study and to the development of an articulated system of vocational education.

Therefore,

PACVE recommends that the State Board of Education, Pennsylvania Department of Education, Governor, and the General Assembly proceed expeditiously to develop a vocational education system that coordinates and integrates vocational education programs and services at the several levels of program delivery.

Recommendation VI—Postsecondary and Adult Vocational Education Programs

There exists a need to create a strong program of adult vocational education in the Commonwealth. Adult vocational education will become increasingly important as the need to train and retrain adults becomes more prevalent in a rapidly changing economy.

It is particularly important to improve the organization and delivery of adult vocational education programs, and to place the funding of adult vocational education on a stronger footing. Also needed is the establishment of program approval standards for adult vocational education programs. The State should support, or subsidize, adult vocational education programs at a substantially higher level than it presently does. However, such an increased subsidy should be used to support only those programs which are clearly intended to develop or enhance occupational skills.

Therefore,

The Pennsylvania Council on Vocational Education recommends to the State Board of Education and the Pennsylvania Department of Education that they take steps cooperatively to expand the quantity and quality of adult vocational education program offerings. These steps should include a process for reviewing and approving programs.

PACVE recommends to the Governor and the General Assembly that the subsidy for adult vocational education programs be increased to a minimum of $9.60 per instructional hour. Furthermore, the state should permit local education agencies to count adults enrolled in regular secondary vocational education programs for the purpose of receiving the vocational average daily membership (VADM) reimbursement from the state.

PACVE also supports the principle of expanding postsecondary vocational education programs and services into areas of the State that are not presently being served by community colleges or by comparable postsecondary level vocational education programs.

Therefore,

PACVE recommends to the State Board of Education, the Governor, and the General Assembly that they explore and initiate measures to expand the availability of postsecondary vocational education offerings to areas of the state not presently being served.

Recommendation VII—Staff Development

The quality of vocational education programs and services depends to a very great extent on the quality of vocational education instruction and leadership. More attention should be given to developing and nurturing the skills of vocational teachers and State and local level vocational administrators.

The four vocational personnel development centers, the University of Pittsburgh, Indiana University of Pennsylvania, The Pennsylvania State University, and Temple University, have been effective in developing the professional competencies of vocational educators. These institutions, and other institutions which prepare vocational instructors, are to be commended for the systematic and proficient fashion in which they have carried out their responsibilities. The Pennsylvania Department of Education is also to be commended for its support in initiating these centers for professional personnel development.

It is essential for all educators, including vocational educators, to have a personnel development plan. Therefore, PACVE supports Act 178 of 1987, which requires that all educators, including vocational educators, develop a personal professional development plan.

Vocational educators need to maintain and develop their skills, including their "occupationally oriented" skills and their pedagogical skills. It is essential that workshops and other in-service experiences be provided to vocational educators, particularly those which enable vocational educators to respond to the needs of handicapped, disadvantaged, and nontraditional students.

While the need for continuing professional development is great at the local level, there is also a need to further develop the skills of State Department of Education staff. The Pennsylvania Department of Education should provide a variety of opportunities to the staff of the Bureau of Vocational and Adult Education to enable staff members to enhance their skills. Such

opportunities should include Bureau staff development sessions, participation in seminars and workshops, attendance at conferences, and other activities designed to increase staff members' level of knowledge and competence.

Therefore,

PACVE recommends that the Department of Education assist local education agencies to develop and implement staff development programs for local level vocational education personnel.

PACVE further recommends that the Department of Education develop and implement measures to enhance the capability of the staff of the Bureau of Vocational and Adult Education to provide assistance and leadership to vocational education personnel at the local level.

On-Site Compliance Review for Vocational Education

During the 1987–88 school year, Department of Education personnel conducted on-site compliance reviews in 44 school districts and 13 area vocational-technical schools. Prior to the reviews, state administrators explained the civil rights requirements of the *U.S. Office for Civil Rights (OCR) Guidelines for Vocational Education Programs* to the respective administrators at a statewide in-service program. The State also provided the administrators with information on the Chapter 6 Vocational Education Regulations of the State Board of Education and the Department of Education Standards to the Regulations, Chapter 339.

During the on-site compliance reviews, state team members used a checklist to record compliance and noncompliance with state regulations. Each institution was given an opportunity to develop a plan of remedy for items in noncompliance. In 1987–88 the state teams reviewed 108 Chapter 6 items and 68 Civil Rights items. Minor violations were reported as a noncompliance even if a finding was in only one program in the school/district. Therefore, opinions drawn from some of the high percentages of noncompliance are sometimes inconclusive.

Summary of Findings

School Districts:

Of the 44 school districts visited by the State during the review process, 14 had vocational education evaluations, 25 had Civil Rights evaluations and 5 had both.

The following areas (nine in civil rights, one in vocational education) were reported in noncompliance at more than 40 percent of the sites visited:

1. If physical obstacles were revealed in an examination of facilities, has a transition plan been developed which specifies the time frame for structural changes?
2. If physical obstacles were revealed in an examination of facilities, has a transition plan been developed which indicates a person responsible for the implementation of the transition plan?
3. Are employment practices free from discrimination against employees or applicants for employment on the basis of sex?
4. Are reasonable accommodations made to the known physical or mental limitations of an otherwise qualified applicant or employee, except where it imposes an undue hardship?
5. Have procedures been adopted and implemented which assure that interested persons, including persons with impaired vision or hearing, can obtain information as to the existence and location of services, activities and facilities that are accessible to and usable by handicapped persons?
6. Has the school conducted a Section 504 self-evaluation, in consultation with handicapped persons or persons from organizations representing the handicapped, in order to identify and remedy potential problems of discrimination on the basis of handicap?
7. If physical obstacles were revealed in an examination of facilities, has a transition plan been developed which lists handicapped persons or organizations representing handicapped persons who were consulted?
8. A school district or area vocational-technical

school must continually and prominently include its policy of nondiscrimination, including the names, addresses and telephone numbers of the Title IX and Section 504 coordinators, in each announcement, publication, bulletin, catalog and application form which is made available to: participants, beneficiaries (students), employees, applicants for employment, parents, and union and professional organizations.

Is the discrimination policy included in all appropriate documents identified above?

9. If physical obstacles were revealed in an examination of facilities, has a transition plan been developed which identifies those physical obstacles?
10. Does the long-range vocational education component/plan at the school include a written policy outlining a plan for job placement services?

Four of the identified Civil Rights areas of noncompliance are related to the Section 504 Transition Plan. The remaining Civil Rights areas with high rates of noncompliance evident are also procedural requirements with which school districts had assured the federal government they were in compliance. All school districts were required to submit assurance forms for Section 504 and Title IX to the United States Department of Education—Civil Rights Section.

Area Vocational-Technical Schools:

Of the 13 area-vocational technical schools visited by the State for an on-site compliance review, all were evaluated for compliance to the State Board's Vocational Education Regulations. Nine AVTS's also underwent Civil Rights evaluations.

The following areas were reported in noncompliance in more than 40 percent of the schools visited:

1. Safety practices being met according to state and federal regulations?
2. Safety instruction being practiced in the laboratory and classrooms?
3. Does the guidance plan promote equal opportunity?
4. Is the competency-based plan managed and planned by the teacher?
5. Are equipment guards and personal safety devices in place and being used?
6. Does the vocational education program contain assurances that students have the appropriate competencies in mathematics, science and English prior to entrance in a vocational training program and that subsequent instruction in these academic areas be appropriate to their chosen area of occupational training?
7. Is there a written guidance plan on file, which is approved by the local board of school districts, for the development and implementation of a comprehensive, sequential program of guidance services, K-12?
8. Is an adequate learning environment being maintained at all times which includes the safety of the students?
9. Is the content of the competency-based plan based upon clearly stated performance objectives as recommended by occupational advisory committees that are deemed critical to successful employment?
10. Does each planned course include instructional time?
11. Do performance objectives include leadership competencies and positive attitudes toward fulfilling occupational, civic, social and community responsibilities?
12. Have procedures been adopted and implemented which assure that interested persons, including persons with impaired vision or hearing, can obtain information as to the existence and location of services, activities and facilities that are accessible to and usable by handicapped persons?
13. Prior to the beginning of each school year, a brief summary of vocational program offerings, admissions or eligibility criteria, the policy of nondiscrimination, and the names, addresses and telephone numbers of the Title IX and Section 504 coordinators must be disseminated to students, parents, employees, potential beneficiaries and the general public. Is this notice available to persons who are visually impaired?
14. Have criteria been developed and disseminated for ensuring that language and portrayals contained in career and course selection information are free from biases and stereotypes?
15. Have procedures been developed and disseminated for the provision of services and activities for handicapped and disadvantaged persons enrolled in vocational education?

A review of the 15 noncompliance items listed above shows that 11 of the items are related to the Vocational Education Regulations and four items are related to Civil Rights. The Civil Rights items carry the lowest percentages of noncompliance. Noncompliance is also frequently found for safety-related items. As with the school districts, comparisons with the results of previous years are difficult due to the changes made in the checklist questions used in the compliance review procedure.

Source: *On-Site Compliance Review for Vocational Education—A Summary of Findings for the 1987-88 School Year,* Pennsylvania Department of Education, Bureau of Vocational and Adult Education.

Vocational Program Highlights

The Pennsylvania Council on Vocational Education is pleased to present in this section descriptions of new and/or innovative programs conducted by or through local vocational education agencies in Pennsylvania.

The Council believes these programs are indicative of the many varieties of programs and activities provided by Pennsylvania's vocational education institutions. As a group, they provide examples of nontraditional vocational education, vocational education services for handicapped students, vocational education that meets a critical skills shortage area, cooperative activities with vocational education at another level, cooperative programs with Private Industry Councils, integration of basic skills instruction in vocational education, and single parent/displaced homemaker programs.

PACVE commends vocational educators, administrators, and advisory committees for responding to the needs of employers for skilled, well-educated employees, and who are working to meet the needs of youth and adults in their communities. PACVE also commends JTPA administrators and their colleagues in the private and public sectors who are providing similar services.

SUN AVTS

Adult Education

The SUN Area Technical School introduced a customized training program in advanced technology for electrical occupations. Additional equipment was purchased to supplement existing equipment in the Electrical Occupations Shop. This equipment is used primarily for training and retraining adult residents of the SUN Area Technical School service area. Secondary students also benefit by using these pieces of equipment.

The purchases enabled the school to offer such customized classes as (1) Electric Motors and Controls, a special course offered by Pennsylvania Power and Light Company; (2) Basic Wiring Skills and Theory, offered in cooperation with the Ritzcraft Corporation; (3) an adult evening program involving electrical theory and skill applications utilizing the newly acquired equipment; and (4) a daytime adult education program. These programs served 96 adults.

For further information about the Advanced Technology Equipment for the Electrical Occupations program at SUN Area Technical School, contact John M. Kauffman, Director, 815 East Market Street, New Berlin, PA, 17855, 717-966-1031.

Williamsport Area Community College

Plastics and Polymer Technology

The Williamsport Area Community College recently added to its course offerings a Plastics and Polymer Technology Program. Pennsylvania has approximately 8,000 workers in this field which has not been serviced by a significant educational development commitment. State and regional employers seeking trained personnel have found it necessary to go as far away as Boston and Michigan to recruit college-level technicians.

Responding to local plastics industries, Suscon and The West Company, and others, the Williamsport Area Community College implemented a new program dedicated to this rapidly emerging industry. New industry figures show a demand for ten times the number of students that are enrolled in the initial classes. Industries have given substantial support to the program. The West Company alone donated more than $250,000 in equipment, materials, and engineering time to assist in the development and evolution of a functional technician program.

The Philadelphia School District

The "TNT" Program—Think Nontraditional

The Philadelphia School District has initiated a special sex equity program at three of its four vocational-technical high schools: Bok, Dobbins and Mastbaum. The program, designed to broaden the options of males and females interested in vocational training, encourages students to consider nontraditional fields of vocational preparation. The district has given the program the name "TNT" for "think nontraditional."

Teachers at Dobbins saw an improvisational performance by members of the Temple University Intergenerational Theatre Troupe. The troupe, whose members range in age from 15 to 80, seeks to break stereotypes through theater. The presentation encouraged the Dobbins teachers to confront their attitudes about sex stereotypes in certain occupations.

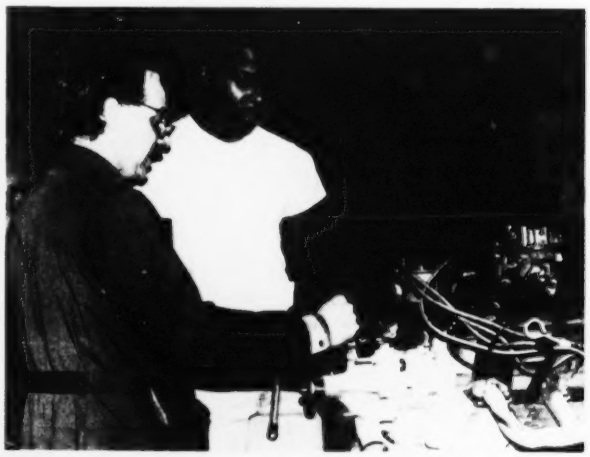
According to one male cosmetology instructor at Bok, peer pressure is greater for males than females. But, after all Bok students were given an opportunity to sample a nontraditional field, seven males decided to enroll in the cosmetology program and three in nursing.

While females also face pressure from peers and parents, it is often mollified because the potential earning power in traditionally male occupations is higher. So far, the program has experienced more success in attracting females to nontraditional fields than males.

The TNT program is aimed at ninth graders who must choose a field of study by the end of the academic year. Students attend assemblies, meet nontraditional role models, and receive support if they make nontraditional choices.

While comprehensive statistics are not yet available, some progress is evident. Twelve female students at Dobbins plan to specialize in welding, compared to only two females from the previous ninth grade class. A total of 77 Dobbins ninth graders chose nontraditional majors compared with only a handful in previous years.

For further information, contact Ray Braccia, Vocational Equity Officer, Edward Bok AVTS, Eighth and Mifflin Streets, Philadelphia, PA, 19148, 215-463-6060.



Mercer County AVTS

Juvenile Corrections

Mercer County Area Vocational-Technical School operates a vocational training facility which serves juvenile offenders residing at the George Junior Republic, a corrections institution for junior and senior high school males. The youths are sent there from virtually every county in Pennsylvania, as well as from many neighboring states. An academic school operated by the Grove City Area School District is also located on the campus.

Although the offerings are similar to other competency-based state-approved programs, unique differences arise from the influences of the state judicial systems and the residential setting. Due to court placements and releases, student turnover is in excess of 70 percent. Therefore, weekly staff activities include assessment, counseling and scheduling. A competency-based curriculum, addressed in sequenced relational groups, permits students in attendance for short periods to leave with salable skills.

The residential setting makes possible a strong integration of academic education, vocational education and extra curricular activities. The School District, AVTS, and Institution maintain effective communications to insure prompt and uniform action when student problems occur. A comprehensive reward system allows students to receive extra privileges for excellent vocational education performance. Professional counselors are available to students 24 hours a day.

Upon release, an active placement service helps students seek employment, return to "home" schools, enter college, or pursue advanced vocational training. A support system, maintained by the George Junior Republic, continues to assist students with adjustment problems after release.

For further information, contact Rachel Martin, Assistant Director, P. 0. Box 152, Route 58, Mercer, PA, 412-343-2480, Ext. 13.

Fulton County

Planning and Cooperation—Fulton County Vocational-Education Consortium

During the 1987–88 school year, the three Fulton County school districts jointly sought and received a research grant to study vocational education in the county. Forming a consortium and hiring a vocational director facilitated the completion of a vocational needs assessment for the county. As part of this study over 50 businesses were interviewed, more than 300 vocational graduates from 1982 to 1987 were surveyed by telephone, and all 7th–10th graders currently enrolled in the county completed questionnaires concerning interest, aptitude and knowledge about vocational education.

A Vocational Education Strategic Planning Meeting held during National Vocational Education Week solicited help from the more than 100 representatives of business, industry, education, government and the service and private sectors attending the meeting. During work sessions participants developed the elements of a philosophy of vocational education for Fulton County, a mission statement, vocational goals, and the activities needed to achieve those goals.

Since that meeting in February, 1988, a major vocational initiative has gained momentum in Fulton County. Working through the Intermediate Unit, the three districts petitioned the State Board of Education to grant the county vocational attendance area status. After they received that status in July, the three districts developed and signed Articles of Agreement and formed a nine-member Joint Operating Committee. Steps are currently being completed to give the Consortium vocational-technical school designation.

Working from the mandate developed at the Strategic Planning Meeting, and with the support of the Bureau of Vocational and Adult Education, the Consortium seeks to expand the number of vocational opportunities available to county students. Curriculum development and utilization grants have been received to add programs in building trades, health occupations and entrepreneurship to the existing programs in agriculture, business and home economics. A vocational guidance counselor, hired to serve the needs of the county's vocational students, provides a comprehensive program of vocational guidance for all residents, kindergarten through adult.

With no AVTS and with no plans to build one, Fulton County is aggressively seeking unique ways to deliver vocational programs. Partnerships established with local business and service industries and postsecondary education institutions in Pennsylvania and Maryland will be critical to the development of new and innovative methods of program delivery. In addition, the county's "vision" for vocational education has been communicated to residents through regular media coverage and multimedia presentations to community organizations such as the Chamber of Commerce.

For more information, contact Cheryl A. Johnston, Vocational Director, Fulton County Vocational Education Consortium, 151 East Cherry Street, McConnellsburg, PA, 17233, 717-485-5813.

Bucks County AVTS

Teleproduction

As interest in video grew and its use became more popular, students in the Electronics Technology Program at Bucks County AVTS were offered a new course selection—Teleproduction. The classroom portion of the course includes instruction in the composite video signal, its transmission and its function. In the laboratory, students learn how to use the equipment and repair it.

The school built a studio which contains a control room, VCR's and space for additional equipment. Students take field trips to television studios and production facilities. Initially no females were enrolled in the program but, as interest grew school-wide, several females enrolled. The students also hear guest speakers who are brought in from the television industry, television stations, and production companies. In-class demonstrations are given by camera operators, lighting experts and editing experts.

Seven video programs produced at the school are currently running on three cable networks. All programs feature a credit section for identification of the students involved in the production.

For further information contact Louis Emsley, Instructor, Radio/TV/Teleproductions, Wistar Road, Fairless Hills, PA, 19030, 215-949-1700.

Franklin County AVTS

Handicapped Landscaping and Horticulture

Since 1986, the Franklin County AVTS has operated an individualized Landscaping and Horticulture program for a multi-handicapped student, a paraplegic with a learning disability in reading. Little adjustment had to be made to the existing program for the student's success; two small ramps were added to outside entrances for access.

A resource teacher was assigned to assist the student with academic work. All phases of the Horticulture and Landscaping program were part of the curriculum, including mowing school courtyards, general maintenance work and floral arranging. Summer employment in groundskeeping was provided to the student in the Private Industry Council Summer Youth Employment Training Program at the Franklin County AVTS.

For further information on this or any program at the Franklin County AVTS, contact Dalton E. Paul, Director, 2463 Loop Road, Chambersburg, PA, 17201, 717-263-9033.

Bethlehem AVTS

Aim for Education

The Fuller Company, a major employer in the Lehigh Valley, sponsors a class for disadvantaged students at Bethlehem AVTS known as *AIM for Education*. The latest statistics show that the numbers of students and adults classified as disadvantaged are on the increase in the Commonwealth of Pennsylvania. The Fuller Company, the AVTS, and other area businesses and industries took the initiative to work with this population and change this trend.

The goals of *AIM for Education* include the development of (1) a good attitude towards work; (2) basic work ethics expected by employers; (3) quality work performance; (4) employee self-confidence; (5) techniques and procedures to use when job seeking; and (6) an awareness of career needs in the Lehigh Valley and opportunities available. A joint effort of the Bethlehem AVTS and the Fuller Company makes achieving these goals possible. Students spend a minimum of one class period per week with a Fuller employee; they also visit a variety of industrial and business sites for a look at the realities of the world of work.

For information contact Sandra E. Rinehart, Equity Project Coordinator, 3300 Chester Avenue, Bethlehem, PA, 18017-2895, 215-866-8013.

Juniata-Mifflin AVTS

Adult Education Programs

Cooperative efforts of the Juniata-Mifflin AVTS administration and the Tuscarora Intermediate Unit enabled the School to become a hub for adult education. Opportunities for adults range from basic education to Penn State Continuing Education credit programs.

The Adult Education Center, operated by the Intermediate Unit, administers seven Job Training Partnership Act (JTPA) programs for disadvantaged residents. One new program provides additional training for persons on public assistance. The Center also administers the Single Parent/Homemaker project, "Re-Entry," for the Juniata-Mifflin AVTS. An innovative activity of this program has been the establishment of a site for Computer Learning Network home-study students who, for a variety of reasons, could not attend on-campus classes.

The AVTS also offers an assortment of traditional adult education vocational classes including Accounting, Typing, Shorthand, Introduction to Word Processing, Automotive Maintenance and Welding. Penn State offers two certificate programs and a variety of noncredit courses on the AVTS campus.

For more information on these programs contact Carol Molek, Supervisor, Pitt Street and Belle Vernon Avenue, Lewistown, PA, 17044, 717-248-4942.

25

Parkway West AVTS

Entrepreneurship Training

Parkway West AVTS has incorporated an entrepreneurship training program into all 22 vocational-technical programs offered at the School. Guest speakers from a small business, the Small Business Development Center and the Internal Revenue Service provide Parkway students with the facts needed when considering starting a business. Incorporating entrepreneurial skills into the curricula provides students with an informational base should they decide to start their own businesses.

Each program at the School integrates 30 hours of competency-based entrepreneurship curriculum materials into the course of study. All students are informed about opportunities available to a small business owner. Members of the Small Business Administration discuss their own ventures as entrepreneurs in the community. Students expressing an interest in pursuing this educational goal are given additional training in such areas as: developing a business plan, obtaining technical assistance, choosing the appropriate type of ownership, managing the business, managing human resources, promotion and sales, business recordkeeping, financing, legal requirements, and customer relations.

This cooperative effort between Parkway West AVTS and members of local business and industry provided students with the skills they need to successfully enter the world of work as entrepreneurs. For further information about the Entrepreneurship Program at Parkway West AVTS, contact Mary D. Ravita, R. D. 1, Box 424, Oakdale, PA, 15071, 412-923-1772.

Steel Valley School District/Steel Center AVTS

Innovative Inservice—Hands-On for Teachers

The Steel Valley School District and the Steel Center AVTS have coordinated an inservice activity designed to help overcome the negative bias on the part of teachers regarding "tech" students and to involve participating teachers in a nontraditional vocational experience. During this activity students assume responsibility for instructing the teachers in a competency-based activity.

Each participating teacher chose one traditional and one nontraditional occupational area to visit. Upon arrival at the vocational-technical school teachers were served lunch; an orientation session devoted to competency-based education followed. Teachers then spent about 25 minutes in each of their chosen shop areas.

Two workshops were offered after the shop experiences. In the first, the AVTS counselor talked about the characteristic vocational student and his/her concerns about fitting into two school environments. The second workshop described support services available at the AVTS.

Teacher evaluations expressed overwhelmingly positive reactions, with many teachers stating the desire for another visit. Middle school teachers were invited to share similar experiences and they responded with the same positive reactions.

For further information, contact Priscilla Jackman, Sex Equity Coordinator, Steel Valley School District, E. Oliver Road, Munhall, PA, 15120, 412-464-3650.

Reading Area Community College

Machine Tool Technology Degree and Credit Certificate

Three years ago, Berks County could not satisfy its industrial needs in the machine/tool trade. Industrial management found itself in need of workers with an ability to perform in a skilled occupation. Because Berks County has 80 machine/tool shops, management saw the need to address the short-sided supply of skilled workers. As a result, the Private Industry Council (PIC), in association with the Job Training Partnership Act (JTPA) and Reading Area Community College, initiated a program to provide Berks County with those needed skilled workers.

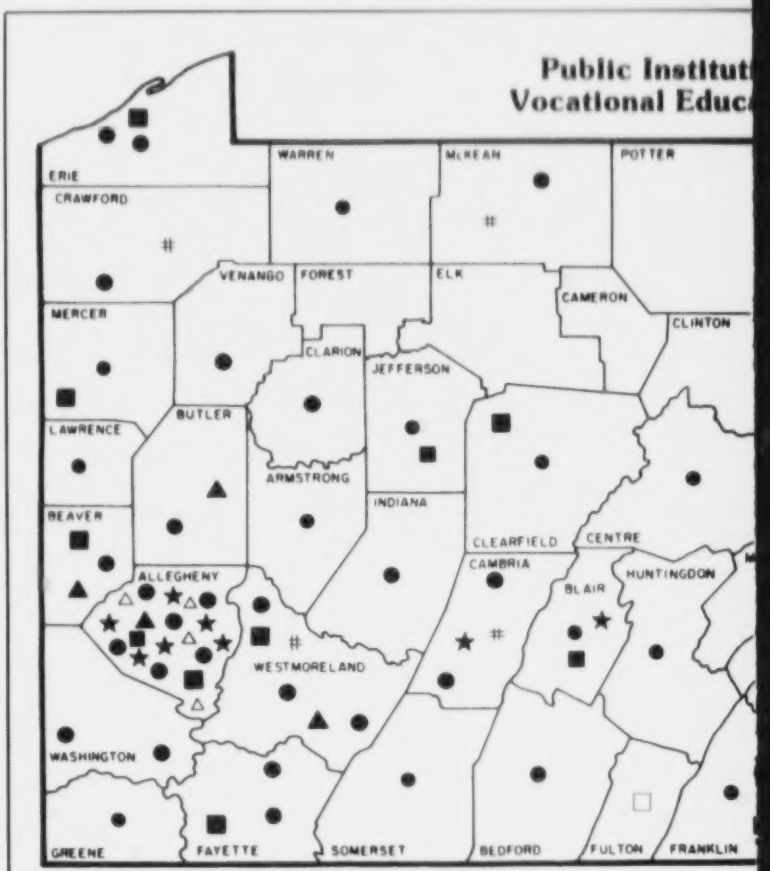
The training program consists of a 910-hour course run as a six-month program providing 130 days of class instruction. Students spend a full day at the Reading-Muhlenberg AVTS where classes are conducted.

The Vocational-Technical School provides the classrooms; the machine shop at the AVTS is fully equipped with the machinery needed to teach entry-level skills and the more advanced Computer Numerical Control technologies. In addition, students are exposed to Computer Aided Manufacturing programming and Digital Numerical Control operations.

Reading Area Community College expanded on these ideas in the machine/tool area by developing an Associate Degree Program in Machine Science. The program consists of a 68-credit college curriculum that teaches and refines those skills that are badly needed by industry. The degree program was developed to perpetuate the expansion of the field of technology. Although the six-month program was an answer to an immediate problem, college administrators and faculty also saw it as a stepping stone to higher education. Students who complete the six-month program earn 31 credits which can be applied to the Associate Degree program.

The Private Industry Council, Reading Area Community College, and the AVTS administrations have pooled their resources into a cooperative venture that gives interested high school students a head start in a career.

For information contact Robert Eck, Reading Area Community College, 10 S. Second Street, P. O. Box 1706, Reading, PA, 215-372-4721, Ext. 297.



87 • Area Vocational-Technical Schools (includes 2 adult AVTS
14 ▲ Community Colleges
18 ■ Penn State Branch Campuses
5 △ Branch Campuses of Community Colleges
□ Vocational Education Consortium
4 # University of Pittsburgh Branch Campuses
13 ★ Comprehensive High Schools Offering Five or More T
Technical Programs.

27

Pittsburgh City Schools—Westinghouse High School

Business and Finance Academy

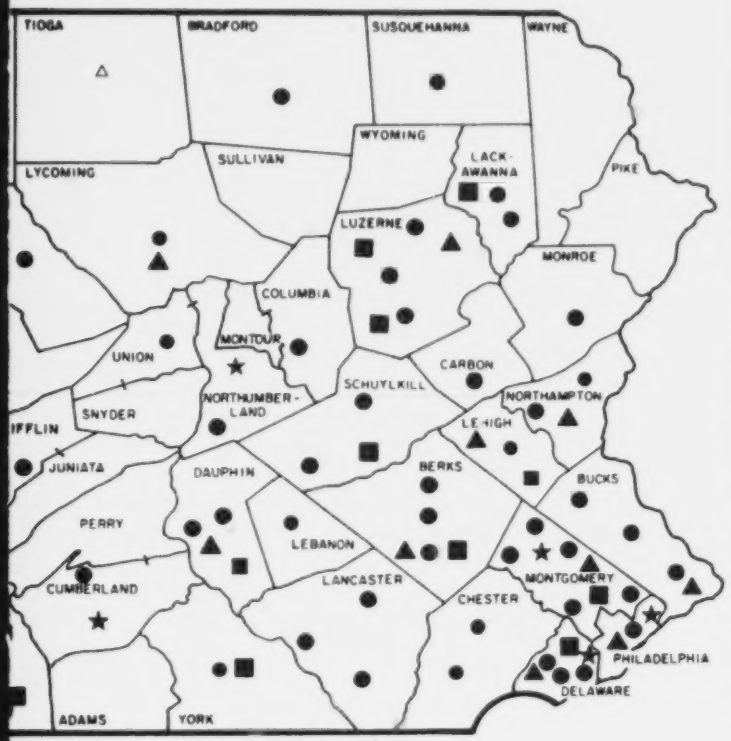
The Business and Finance Academy at Westinghouse High School started in 1984 with 49 students; currently over 150 students are enrolled. The administration established goals of improving the academic performance of Academy students, keeping them in school and inspiring them to go on to higher education. The Academy is funded by private foundation grants, the Pittsburgh Public Schools, the Urban League of Pittsburgh, the Allegheny Conference and a variety of area financial institutions.

Structured as a school-within-a-school, the Academy provides training in business and finance to a group of Westinghouse students. The curriculum was developed by the school system and the business community and includes academic work in English, math and science, as well as employability skills services.

Students enter in their sophomore year. Local employers provide summer jobs for juniors as well as year-round, part-time jobs for seniors. Every senior also has a mentor, a professional who volunteers time to spend with a particular student, providing a valuable role model.

For further information contact Fred Monaco, Director of Career and Vocational Education, The Pittsburgh School District, 635 Ridge Avenue, Pittsburgh, PA, 15212, 412-323-3160.

ions Offering
ation Programs



Note: There are several AVTS sites in Philadelphia. There are also several comprehensive high schools in Philadelphia and Pittsburgh that offer full vocational programs.

Source: Bureau of Vocational and Adult Education, Pennsylvania Department of Education.

Butler County AVTS

Flexible Scheduling to Meet Students' Needs

The Butler County Area Vocational-Technical School is planning a delivery system modification for the 1989–90 school year. Traditionally, the school operated a two-year program with two forty-five minute sessions per day. With new State requirements for graduation being implemented, the school changed to three two-hour sessions per day. By making this modification, the AVTS provided its students with two additional periods in their high school experience, one in each of their junior and senior years, to obtain needed additional credits at their home schools.

The new flexible delivery system being considered would allow students to choose from among three plans for completion of their vocational programs. Plan I would allow sophomores to enroll for their sophomore and junior years or, they could attend the vo-tech in their sophomore year, work on academic subjects their junior year and attend the AVTS in their senior year. Plan II would permit juniors to attend the AVTS in their junior and senior years as they are currently doing. Plan III would allow seniors to enroll in a program on a one-year basis.

Administrators at the school asked the Department of Education for approval of this new delivery system. Research will be conducted to determine if there is a learning loss for those students who would have their instruction interrupted for one year or who would complete the instruction one year prior to employment.

For further information about the new delivery system at Butler County AVTS, contact Donald F. Drake, Director of Vocational Education, 161 New Castle Road, Butler, PA, 16001, 412-282-0735.

28

McKeesport AVTS

Home/Health Management Program

The McKeesport Area School District recently completed renovations to a home/health suite located in the vocational technical building. The renovations were approved and funded following a needs assessment which indicated that the largest area of employment in the district would be in the health-related fields. School officials had concluded that the needs of the handicapped in the district could be served by such an undertaking.

The Home/Health Management Program, a two-year program, provides class and laboratory instruction. The first year is primarily for beginning students; the second year provides clinical experiences in preparation for entry level employment. The suite consists of three separate classrooms, a nursery center, a health center, and a home life center.

Students manage the Nursery School Program with supervision provided by an instructor. The program enrolls four-year-old children from the community; the children attend two days per week, two hours each day. The high school students employ methods learned in classroom instruction to teach the pre-schoolers necessary social skills. The room is divided into several instructional areas including art activities, dramatic play, small motor activities, and a reading corner, with areas for large group instruction.

The Health Center includes a home bedroom and a hospital area. In the home area, training centers around adaptive skills for use in the home environment. The hospital area is used for instruction of skills used in the professions of home health aide, geriatric aide and institutional aide. Students also work with special education students to help them develop life skills. Specialized training in adaptive devices for the physically handicapped is included in the course.

The Home Life Center includes a standard kitchen with a side-by-side refrigerator, two ranges, two cooking centers at wheelchair level, a dishwasher, sewing machines, standard small kitchen appliances, and a laundry center. Storage cabinets are readily accessible at all levels and a large demonstration area is included.

A unique feature of the entire suite is the inclusion of a computer center with adaptable devices for the handicapped.

For information about this program contact Nelda Renner, Vocational Director, 3600 O'Neil Boulevard, McKeesport, PA, 15132, 412-664-3690.

Lawrence County AVTS

Keeping Kids in School

Designed to keep high school students in school, two new programs are being offered in Lawrence County beginning with the 1988–89 school year. One is Alternative Education, for those with behavioral problems, and the other is Students At Risk, for potential dropouts who are older than the average student at a particular grade level.

Alternative Education, designed for students who are two to three years behind their grade levels, also serves those who have behavior problems. Students receive academic and vocational training along with counseling and must enroll for a minimum of twelve weeks. The At Risk program is designed for those who are 16–17 years old and are in 9th or 10th grades. They are exposed to various vocational areas they may want to pursue or in which they may be interested. Instruction has been designed that allows them to move into the General Equivalency Diploma program and be eligible for a state diploma if they decide to drop out of the regular school program.

Both programs, which are conducted at the Lawrence County AVTS where staff and space are available, provide services to the sending districts at no cost. The students have "access to the total vocational program;" project coordinators hope they will find new interests. Some grant monies have been made available for the At Risk program and there are federal programs available that provide support for the staff. Both programs utilize existing professional personnel.

For further information, contact Arthur R. Zarone, Director, 750 Wood Street, New Castle, PA, 16101, 412-658-3581.

29

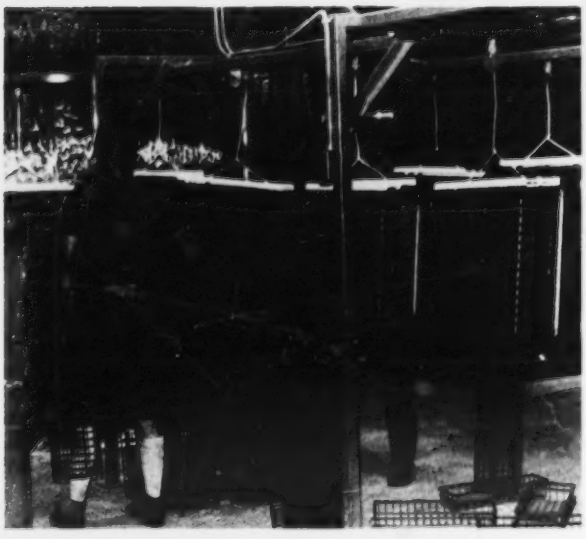
Eastern Montgomery County AVTS

Instructional Support for Students With Special Needs

School programs at Eastern Montgomery County Area Vocational-Technical School are clustered by related trade activities. A resource teacher, certified in special education, circulates throughout each cluster, enabling direct classroom contact with the students. The resource teachers are also able to work with individual instructors to develop ways to meet the needs of students with special needs. The clusters established are the (1) Construction Cluster, with instruction in carpentry, electrical occupations, plumbing and welding; (2) Service Cluster, with instruction in cosmetology, health occupations, horticulture and quantity foods; (3) Technology Cluster, with instruction in commercial art, commercial printing, computerized information systems and electronics; and (4) Power Mechanics Cluster, with instruction in auto body, auto mechanics and automated machine technology.

This system gives the instructors the opportunity to target students in need of extra help, support and reinforcement. The resource teacher then works with the instructor to provide necessary supportive classroom assistance. The system has become even more important at Eastern Montgomery County AVTS because of the increased numbers of students attending the school with special needs.

For further information contact Ms. Anita Beckett, Special Education Coordinator, 175 Terwood Road, Willow Grove, PA, 19090, 215-659-4421, Ext. 216.



Venango County AVTS

Industry/Education Coordination

Venango County Area Vocational-Technical School took a leadership role in establishing a training plan for 28 new workers for IKL Manufacturing Company in Marienville. A problem arose at the IKL plant when it needed skilled employees to operate the high-tech equipment used in the manufacture of hardware for kitchen cabinets.

The School's Industry/Education Coordinator organized a training program to teach the workers necessary skills. The company trained instructors in a sister company in Waterbury, Connecticut. They, in turn, instructed 28 new employees to function as equipment operators. When the high-tech machinery arrived from Connecticut, the employees were trained on the job by the persons previously instructed in Connecticut.

The IKL company has been able to add 200 new employees in less than one year. Current projections indicate that 200 more individuals will be hired as business expands. Eighty-eight of the new employees have been trained at the Venango County AVTS as the result of the new Industry/Education Cooperative Program.

For further information on this program at Venango County AVTS, contact Stanley W. Parker, Industry/Education Coordinator, 1 Vo-Tech Drive, Oil City, PA, 814-677-3097.

Forbes Road East AVTS

Changing Directions Network

The Changing Directions Network at Forbes Road East Area Vocational-Technical School helps local residents choose careers, complete their education and training and become employed. Free support services offered to participants include on-site childcare, transportation, guidance and counseling, nontraditional career exploration, tutoring, Adult Basic Education/General Equivalency Diploma training, tuition assistance and job placement services. The Changing Directions Network is a joint venture of separate programs for special populations funded by the Carl D. Perkins Act. Additional support services, funded through the Job Training Partnership Act, help provide a comprehensive support base for individuals in transition.

Single parents use the transportation services provided through Network funding to transport themselves and their children to Forbes Road East AVTS. The children benefit from an early childhood curriculum in the Day Care Center while the parent prepares for and attends vocational training.

After assessment, "hands-on" nontraditional training exploration, parent education and a guidance and counseling class, parents enroll in a vocational program. Special Needs facilitators provide specific skills remediation as part of regular classroom training. Each participant receives ABE/GED instruction and life skills and job search training as well as placement assistance.

The Changing Directions Network has resulted in the development of a Joint Jobs Initiative demonstration project which involves the Departments of Labor and Industry, Welfare, and Education. This joint venture provides assistance to economically disadvantaged adults who have multiple barriers to employment. Known as SPOC (Single Point of Contact), the Project links Carl Perkins funded programs at Forbes AVTS with outside agencies and programs providing employment, training, placement, counseling and financial assistance.

For further information contact Korri Franci, Beatty and Cooper Roads, Monroeville, PA, 15146, 412-373-8100.

Martin Luther King High School

Adopt-A-School Program

Since its inception almost three years ago, the Business Education Advisory Council (BEAC) of Martin Luther King High School in Philadelphia has been more than an advisory committee. The "Adopt-A-School" program, implemented in Philadelphia several years ago, presented an opportunity to make the BEAC commitment official.

The numerous activities initiated and conducted by the BEAC include (1) a monthly role model program—classroom presentations made by representatives of various occupations to provide an awareness of career options; (2) an annual Communications Day Program during which the Committee provides speakers for each Business Education class to discuss various aspects of communications important for success on the job; (3) an annual Business Education Awards Program breakfast; (4) worksite visits; and (5) fund raising for a scholarship to be presented at graduation to a business student planning to continue his/her education.

For information about the BEAC Adopt-A-School Program, contact Ms. Ronnie H. Fisher, Business Education Department Head, Stenton Avenue and Haines Street, Philadelphia, PA, 19138, 215-927-7200, Ext. 2360.

31

Altoona AVTS

Comprehensive Transitional Employment and Services

A two-year demonstration project designed to aid the adult learning disabled student has been initiated by the Altoona Area Vocational-Technical School, through its Adult and Continuing Education Office. Learning Disabled students comprise a subgroup among the handicapped for which availability and adequacy of vocational education opportunities have been particularly limited. Through this program, adults with learning disabilities participate in a comprehensive vocational training program with the ultimate goal of gaining entry-level employment and adjustment to the community and workplace.

First year activities include recruitment, client assessment/counseling and vocational exploration and placement into vocational training. Life coping skills and job specific basic skills will be taught throughout the training.

During the second year, transitional employment and training services will be provided to all students. Project management and evaluation will continue to be provided by The Pennsylvania State University's College of Education. Dissemination efforts will include the preparation of an implementation manual to be used to replicate the project in Pennsylvania and nationally.

This project is a cooperative effort with The Pennsylvania State University. Working with university professionals in the Adult Educational program, Vocational Education program and the Institute for the Study of Adult Literacy, a model vocational program will be the result. The project is funded by a grant from the U. S. Office of Education.

For further information, contact John T. Prosperi, Administrative Assistant, Adult and Continuing Education, 1500 Fourth Avenue, Altoona, PA, 16602, 814-946-8450.

Greater Johnstown AVTS

Enrichment Classes in the World of Work

The Greater Johnstown Area Vocational-Technical School operates an innovative and cooperative program during the summer entitled "Enrichment Classes in the World of Work." The program attempts to expose students at a young age to vocational and technical education programs. This exposure has served as a good recruiting device and public relations activity. Applications are mailed to 31 elementary, junior high and parochial schools within the sending school districts.

The program, now in its third year, began when the United Johnstown Chapter of the Pennsylvania Association for Gifted Education (PAGE) suggested to the AVTS that it offer a program in the summer, for all students, to eliminate boredom and enrich their educational outlooks. The Association helped formulate topical interest areas and school staff members were solicited to teach in those fields. The offerings have varied slightly from year to year and in repeat programs, the curriculum has been modified based on previous experiences.

Normally, six different courses are offered. Students choose two of the six areas in which they have an interest. The criteria for the program require that it be interesting to the participating age group, it must have hands-on activities, and, if possible, the students should have something to take home with them to remind them of their experiences. Each course offering consists of two morning sessions. Parents supply the transportation and pay a registration fee. Each student receives a tee shirt with the program logo on the front. The program is offered to all students entering fourth through ninth grades.

Inquiries may be addressed to Neil Lehman, Director of Curriculum, Research and Development, 445 Schoolhouse Road, Johnstown, PA, 15904, 814-266-6073, Ext. 40.

Erie County AVTS

Exemplary Sex Equity Program

The Erie County AVTS successfully operates a Vocational Sex Equity Program. The program was designated as an Exemplary project in 1986 by the Pennsylvania Department of Education and provides services to the ten sending school districts in Erie County. One of the program highlights is a Career Awareness Program offered to all students in grades 7 through 10. In grade 9 students participate in a three-day career awareness session that includes career assessment, an introduction to nontraditional careers and career exploration. Students are then invited to visit a nontraditional course at the AVTS.

Once a student enrolls in a nontraditional course, he/she belongs to a Peer Support Group which meets once a month with the Sex Equity Coordinator. Students share successes and problems and also visit local industries to view nontraditional workers on the job.

In addition to the services provided to the ten sending school districts, the program serves as a model and resource to other sex equity programs across the state. Two video tapes have been produced that have been presented at state conferences and shared with other projects.

For further information, please contact Neala B. Fourspring, Equity Program Coordinator, 8500 Oliver Road, Erie, PA, 16509, 814-868-0837.

Berks County AVTS

Cooperative Venture—Meeting Needs of Competing Companies

Can companies cooperate while they compete? Four Berks County area hosiery mills have proved they can. All had been experiencing a shortage of "fixers", the skilled mechanics and set-up personnel necessary to keep production moving. The shortage endangered production capabilities and prevented an expansion of the businesses. All efforts at recruiting personnel failed, so the only solution was to develop a local training capability.

Two members of the knitting industry, working with company representatives, developed a course which they now instruct. Job Training Partnership Act (JTPA) funding available through Berks County Employment and Training put the course in place through a contract with Berks Vocational-Technical School. The JTPA program's Assessment and Career Direction Center (a contracted service of the Berks AVTS) took care of recruitment and screening of applicants, and the companies contributed machinery, equipment and supplies.

Cooperation among business competitors, the JTPA system and the Berks County AVTS gives the County an innovative training program which has already received attention through an article in *Hosiery News,* a nationally circulated trade magazine. More importantly, 16 new "fixers", well trained in the basics of their trade, graduated and were employed by the cooperating companies. They will receive further instruction in the maintenance and repair of the sophisticated computerized process controls which characterize the new high speed knitting equipment in which the companies have made heavy capital investments.

Knitting industry representatives looked forward to a new class of 15 trainees which began in September, 1988. The companies continue to compete in the market, but continue to cooperate in order to bolster the health of the industry in Berks County.

For information about this cooperative program, contact Robert A. Runkle, Director, R. D. 1, Box 1370, Leesport, PA, 19533, 215-374-4073.

A. W. Beattie AVTS

Sex Equity Program

In the Northern Allegheny County Schools, the colors pink and blue are out! At least those colors made a poor showing on "People Equal Day" in many of the area schools. This was one activity which was designed by the Equity Program at A. W. Beattie AVTS to help eliminate stereotyping in the schools. The I CAN Equity Program (Individualized Career Access Network) encourages students in nine school districts to explore careers beyond traditional stereotyped roles.

People Equal Day is a school-wide activity individually planned for each school with the cooperation of the principals, counselors, and members of the participating school's student council. Activities may include a Cinderella/Prince Charming game where the students determine if they are ready for today's world of work, special lunch menus, equity posters, videos on nontraditional career opportunities, and of course, everyone avoiding the wearing of the traditional stereotyped colors of pink and blue.

The I CAN Equity Program was also responsible for career interest testing in four area school districts and equity presentations for 8th, 9th, and 10th grade students in the nine area school districts. Tours of vocational programs were provided; tenth grade students participated in a hands-on experience in a nontraditional area.

The 1987–88 school year was regarded as a successful beginning for the Equity Program due to the support and cooperation of area administrators, counselors, and teachers.

For information about the Sex Equity program and the People Equal Day at the A. W. Beattie AVTS, contact J. A. Kukura, Sex Equity Program Coordinator, 9600 Babcock Boulevard, Allison Park, PA, 15101, 412-366-2800.

33

Status of Vocational Education in Pennsylvania

In this section, PACVE presents a statistical summary of the status of vocational education in Pennsylvania. Areas covered include enrollment figures for adults, secondary students and special populations, placement information on completers of vocational programs, earnings of employed vocational graduates, and information on the Customized Job Training program.

Vocational Education in Pennsylvania is Offered in 800 Institutions

TABLE I: Public Vocational Education Institutions and Programs in Pennsylvania, 1986–87.

Type of Institution by Level	Number of Institutions Providing Vocational Education	Number of Programs Offered
TOTAL	800*	7,497
Secondary	692	4,226**
AVTS	85	1,610
High School	586	1,610
Intermediate Unit	14	26
Correctional Institution	7	34
Postsecondary* **	91	1,333
Community College	14	772
Penn State Branch Campus	18	188
Other Institutions	59	373
Adult	221	1,898
AVTS	71	1,306
High School	133	487
Correctional Institution	10	74
Intermediate Unit	7	31

*Unduplicated.

**Includes 101 programs not approved under state regulations and standards for vocational education.

***Data not collected in 1986–87.

Source: Bureau of Information Systems, Pennsylvania Department of Education.

The Decline in the Percent of High School Students Enrolled in Vocational Education Continues

The 1986-87 school year marks the fourth year in a row that vocational education enrollments as a percentage of the total public secondary school enrollment (grades 10-12) declined. From a high of 53.2 percent in 1982-83, the proportion of all students enrolled in vocational education programs, including Consumer and Homemaking Education, has dropped to 42.5 percent in 1986-87.

TABLE II: Percent of Pennsylvania High School Students Enrolled in Vocational Education, 1976-87.

Year	All Students Grades 10-12	Occupational Vocational Education Enrollments*		Total Vocational Education Enrollments**	
	N	N	% of Total	N	% of Total
1976	545,438	184,692	34.1	254,800	47.0
1977	535,859	185,703	34.7	252,739	47.2
1978	521,894	190,796	36.6	259,914	49.8
1979	507,133	192,819	38.0	261,362	51.5
1980	493,067	194,402	39.4	258,913	52.5
1981	478,719	188,829	39.4	251,849	52.6
1982	459,552	182,347	39.7	242,920	52.9
1983	438,066	178,514	40.8	233,242	53.2
1984	424,201	166,212	39.2	216,910	51.1
1985	412,467	153,150	37.1	197,996	48.0
1986	411,976	135,148	32.8	181,486	44.1
1987	396,138	123,228	31.1	168,535	42.5

Source: Pennsylvania Department of Education.

*Does not include Consumer and Homemaking Education.
**Includes Consumer and Homemaking Education.

Vocational Education Programs in Pennsylvania Show a Continuing Decline in Enrollment

All occupational areas of vocational education experienced a decline in enrollment in 1987. However, the overall decline was 7 percent, a slight decrease from the 8 percent decline of previous years.

TABLE III: Secondary Vocational Education Enrollments in Pennsylvania, 1977–87.

Program Area	1977	1979	1981	1983	1985	1986	1987	Change 86–87
Agriculture Education	15,784	15,637	13,788	12,728	11,122	10,627	9,443	-8%
Marketing & Distributive Ed.	11,057	10,853	9,751	8,856	7,071	6,263	5,809	-7%
Health Occupations	3,781	4,826	5,317	5,166	4,866	4,557	4,210	-8%
Occupational Home Economics	7,200	7,538	7,300	10,032*	9,002	8,419	7,502	-11%
Business Education	65,106	64,811	60,651	61,146	50,322	45,108	39,966	-11%
Technical Education	10,949	10,290	9,816	8,827	7,766	7,477	—	—
Trade and Industrial Ed.	70,781	76,540	74,498	58,859*	51,803	47,371	50,822*	-7%
Not Elsewhere Classified	—	1,833	4,986	12,200	10,983	5,686	5,476	-4%
GAINFUL SUBTOTAL	185,703	192,819	185,956	178,514	153,150	135,418	123,228	-9%
Consumer and Homemaking Ed.	67,036	68,543	63,013	54,728	44,846	46,338	45,307	-2%
TOTALS	252,739	261,362	248,969	233,242	197,996	181,486	168,535	-7%

*Changes due in part to alterations in student accounting methods.

Note: Technical Education combined with Trade & Industrial Education for 1987 figures.

Source: Bureau of Vocational and Adult Education, Pennsylvania Department of Education.

Postsecondary Vocational Education Enrollments Declined Slightly in 1986–87

Postsecondary vocational education enrollments decreased in 1986–87 for the third consecutive year.

TABLE IV: Postsecondary Vocational Enrollments in Pennsylvania, 1983–87.

Program Area	1983	1984	1985	1986	1987	Change 86–87
Agriculture Education	786	767	944	902	880	-2%
Business Education	29,292	32,971	34,121	32,000	31,270	-2%
Health Occupations Education	16,248	16,106	17,077	17,094	16,710	-2%
Marketing & Distributive Education	3,183	3,969	6,049	6,338	6,200	-2%
Occupational Home Economics Ed.	2,362	2,291	3,059	3,327	3,250	-2%
Technical Education	18,734	17,659	19,908	20,295		
Trade & Industrial Education	8,245	8,080	10,249	8,914	28,550*	-2%
Not Elsewhere Classified	1,280	1,258	1,726	1,170	1,140	-3%
TOTAL	80,130	83,101	93,133	90,040	88,000	-2%

Note: Technical Education and Trade and Industrial Education combined for 1986–87.

Source: Bureau of Vocational and Adult Education, Pennsylvania Department of Education.

Adult Vocational Education Enrollments Increased Slightly in 1986–87

Adult vocational education enrollments increased by only 1 percent in the year 1986–87. This was considerably lower than the 10 percent increase between 1984–85 and 1985–86.

TABLE V: Adult Vocational Education Enrollments in Pennsylvania, 1983–87.

Program Area	1983	1984	1985	1986	1987	Change 86–87
Agriculture Education	5,508*	4,758	4,841	4,619	5,035	+9%
Business Education	21,067	22,157	18,771	26,096	24,330	-7%
Health Occupations Education	9,056	7,413	5,512	6,643	5,303	-20%
Marketing & Distributing Education	1,467	426	950	880	929	+6%
Occupational Home Economics Education	2,266	2,902	3,165	2,839	3,061	+8%
Technical Education	5,686	3,721	3,847	4,217		
Trade & Industrial Education	33,908	29,902	33,326	32,962	40,799	+10%
Not Elsewhere Classified	368	323	369	423	366	-13%
GAINFUL TOTAL	79,326	71,602	70,781	78,679	79,823	+1%
Consumer & Homemaking Ed.	2,480	2,492	2,334	1,702	1,510	-11%
TOTAL	82,139	81,818	73,936	80,381	81,333	+1%

Note: Technical Education and Trade and Industrial Education combined for 1986–87.

Source: Bureau of Vocational and Adult Education, Pennsylvania Department of Education.

Full-Time Equivalent Enrollments of Secondary Students in Pennsylvania's Area Vocational-Technical Schools Decline From 1986–88. However, Enrollments for Adults Increase.

Many factors interact to reduce full-time enrollments (FTE) in secondary vocational programs. Some are related to overall population decline while some are related to changes in State requirements for graduation. Recent figures show a 9.8 percent decrease in secondary enrollments for full-time, day use of all facilities. However, there was an 8.3 percent increase in adult enrollments.

TABLE VI: Capacities and Enrollments for AVTS's by County by School, 1986–88.

	1986–87					1987–88				
County/AVTS	FTE Capacity	FTE Secondary Enrollments	FTE Adult Enrollments	Total	% of Capacity	FTE Capacity	FTE Secondary Enrollments	FTE Adult Enrollments	Total	% of Capacity
Allegheny										
A. W. Beattie	726	467	0	467	64.3	726	410	0	410	56.5
Forbes Road East	572	421	0	421	73.6	800	410	22	432	54.0
McKeesport						240	143	0	176	73.3
Parkway West	480	459	0	459	95.6	800	385	0	404	50.5
Steel Center	594	326	0	326	54.9	594	310	6	316	53.2
Armstrong										
Lenape	696	493	0	493	70.8	696	491	7	498	71.6
Beaver										
Beaver County	534	385	18	403	75.5	528	406	11	417	79.0
Bedford										
Bedford-Everett	184	132	0	132	71.7	184	142	0	142	77.2
Berks										
Berks County—East	572	373	0	373	65.2	572	367	6	383	67.0
Berks County—West	572	339	0	339	59.3	572	332	0	373	65.2
Reading—Muhlenberg	756	529	0	529	70.0	756	515	0	520	68.8
Blair										
Altoona	1,080	714	19	733	67.9	1,080	641	0	671	62.1
Bradford										
Bradford County	192	160	0	160	83.3	225	149	1	150	66.7
Bucks										
Bucks County	891	572	0	572	64.2	891	547	0	547	61.4
Middle Bucks County	625	331	0	331	53.0	625	291	0	302	48.3
Upper Bucks County	550	355	1	356	64.7	810	314	0	314	38.8

County/AVTS	1986–87 FTE Capacity	1986–87 FTE Secondary Enrollments	1986–87 FTE Adult Enrollments	1986–87 Total	1986–87 % of Capacity	1987–88 FTE Capacity	1987–88 FTE Secondary Enrollments	1987–88 FTE Adult Enrollments	1987–88 Total	1987–88 % of Capacity
Butler										
Butler County	504	384	0	384	76.2	504	381	0	381	75.6
Cambria										
Admiral Peary	410	285	34	319	77.8	450	291	6	297	66.0
Greater Johnstown	1,748	872	0	872	49.9	775	422	0	422	54.5
Carbon										
Carbon County	308	240	0	240	77.9	308	231	6	237	76.9
Centre										
Centre County	432	266	0	266	61.6	432	271	0	271	62.7
Chester										
Central Chester County	311	288	0	288	92.6	567	288	14	302	53.3
Northern Chester County	991	381	8	389	39.3	991	397	24	421	42.5
Clarion										
Clarion County	346	233	0	233	67.3	259	214	3	217	83.8
Clearfield										
Clearfield County	363	260	0	260	71.6	363	249	4	253	69.7
Clinton										
Keystone Central						340	135	0	135	39.7
Columbia										
Columbia—Montour	700	659	0	659	94.1	400	290	0	290	72.5
Crawford										
Crawford County	378	321	4	325	86.0	360	311	7	318	88.3
Cumberland										
Cumberland-Perry	540	475	0	475	88.0	540	449	2	451	83.5
Dauphin										
Dauphin County	1,297	772	0	772	59.5	500	311	15	326	65.2
Harrisburg—Steelton—Highspire	1,016	447	0	447	44.0	1,016	410	0	410	40.4
Delaware										
Delaware County—Aston	432	118	0	118	27.3	280	43	0	43	15.4
Delaware County—Folcroft	738	368	0	368	49.9	675	295	0	295	43.7
Delaware County—Marple	745	416	0	416	55.8	700	294	34	328	46.9
Erie										
Technical Memorial	2,198	942	0	942	42.9	725	555	0	555	76.6
Erie County	460	435	0	435	94.6	450	350	2	352	78.2

County/AVTS	1986-87 FTE Capacity	1986-87 FTE Secondary Enrollments	1986-87 FTE Adult Enrollments	1986-87 Total	1986-87 % of Capacity	1987-88 FTE Capacity	1987-88 FTE Secondary Enrollments	1987-88 FTE Adult Enrollments	1987-88 Total	1987-88 % of Capacity
Fayette										
Fayette County	550	381	0	381	69.3	550	425	19	444	80.7
North Fayette County	338	305	0	305	90.2	338	287	10	297	87.9
Franklin										
Franklin County	443	599	0	599	135.2	625	568	0	568	90.9
Greene										
Greene County	293	184	0	184	62.8	293	180	32	212	72.4
Huntingdon										
Huntingdon County	323	218	0	218	67.5	345	209	16	225	65.2
Indiana										
Indiana County	360	255	0	255	70.8	375	253	14	268	71.2
Jefferson										
Jefferson County—Dubois	976	547	63	610	62.5	375	265	30	295	78.7
Lackawanna										
Lackawanna County—Dende	792	290	0	290	36.6	950	321	28	349	36.7
Lackawanna County—Mensky	336	134	0	134	39.9	302	93	0	93	30.8
Lancaster										
Lancaster County—Brownstown	385	153	36	189	49.1	385	152	29	181	47.0
Lancaster County—Mt. Joy	345	161	13	174	50.4	370	218	24	242	65.5
Lancaster County—Willow St.	605	301	118	419	69.3	640	418	78	496	77.5
Lawrence										
Lawrence County	1,040	860	0	860	82.7	912	826	1	827	90.7
Lebanon										
Lebanon County	536	348	0	348	64.9	416	393	56	449	107.9
Lehigh										
Lehigh County	1,176	1,081	74	1,155	98.2	1,176	820	47	867	73.7
Luzerne										
Hazelton	462	396	0	396	85.7	462	325	0	325	70.3
West Side	800	715	0	715	89.4	700	722	0	722	90.2
Wilkes-Barre	709	537	0	537	75.7	518	496	0	496	95.8
Lycoming										
Williamsport Area Community College	1,200	605	0	605	50.4					

County/AVTS	1986-87 FTE Capacity	1986-87 FTE Secondary Enrollments	1986-87 FTE Adult Enrollments	1986-87 Total	1986-87 % of Capacity	1987-88 FTE Capacity	1987-88 FTE Secondary Enrollments	1987-88 FTE Adult Enrollments	1987-88 Total	1987-88 % of Capacity
McKean										
Seneca Highlands	175	152	12	164	93.7	175	158	7	165	94.3
Mercer										
Mercer County	292	252	32	284	97.3	292	243	14	257	88.0
Mifflin										
Juniata—Mifflin County	216	208	0	208	96.3	350	193	0	193	55.1
Monroe										
Monroe County	360	299	0	299	83.1	360	335	0	335	93.1
Montgomery										
Central Montgomery County	590	346	0	346	58.6	590	297	0	297	50.3
Eastern Montgomery County	576	258	0	258	44.8	576	278	44	322	55.9
North Montco	480	343	0	343	71.5	575	330		350	60.9
Western Mongtomery County	546	209	0	209	38.3	445	176	31	207	46.5
Northampton										
Bethlehem	870	659	25	684	78.6	870	590	94	684	78.6
Eastern Northampton County	568	333	81	414	72.9	568	362	46	408	71.8
Northumberland										
Northumberland County	497	213	0	213	42.9	497	181	0	181	36.4
Philadelphia										
A. P. Randolph Skills Center	465	435	0	435	93.6	465	496	0	496	106.7
Alvin Swenson Skills Center	1,026	857	0	857	83.5	1,026	952	0	952	92.8
Edward Bok	2,198	968	0	968	44.0	2,198	970	0	970	44.1
Jules E. Mastbaum	1,649	1,303	0	1,303	79.0	1,649	1,279	0	1,279	77.6
Murrell Dobbins	2,576	1,490	0	1,490	57.8	2,576	1,488	0	1,488	57.8
W. B. Saul HS of Ag. Science	502	648	0	648	129.1	502	648	0	648	129.1
Schuylkill										
Schuylkill County—North	405	277	0	277	68.4	300	23	256	279	93.0
Schuylkill County—South	513	264	0	264	51.5	3 25	271	46	317	97.5
Somerset										
Somerset County	497	326	11	337	67.8	400	303	9	312	78.0
Susquehanna										
Susquehanna County	180	121	40	161	89.4	180	132	52	184	102.2
Union										
SUN	254	142	0	142	55.9	400	261	20	281	70.3

County/AVTS	1986-87 FTE Capacity	FTE Secondary Enrollments	FTE Adult Enrollments	Total	% of Capacity	1987-88 FTE Capacity	FTE Secondary Enrollments	FTE Adult Enrollments	Total	% of Capacity
Venango										
Venengo County	443	239	49	288	65.0	492	267	58	325	66.1
Warren										
Warren County	329	266	0	266	80.9	329	222	0	222	67.5
Washington										
Mon Valley	450	278	0	278	61.8	500	286	16	302	60.4
Western	243	229	0	229	94.2	330	231	5	236	71.5
Westmoreland										
Central Westmoreland County	648	706	0	706	109.0	648	693	5	698	107.7
Eastern Westmoreland County	513	286	0	286	55.8	460	268	10	278	60.4
Northern Westmoreland County	376	192	0	192	51.1	327	179	0	179	54.7
York										
York County	1,937	1,237	0	1,237	63.9	1,937	1,210	0	1,210	62.5
Totals	54,984	35,824	638	36,462	66.3	50,328	33,288	1,170	33,458	66.5

Source: Bureau of Vocational and Adult Education, Pennsylvania Department of Education.

Vocational Student Organizations Show a Slight Decrease in Members

Occupational skills learned in the classroom and laboratory are enhanced by the leadership experiences gained through participation in a vocational student organization. While the number of vocational student organization chapters increased, overall membership in the organizations showed a decline for the first time in three years reflecting the decline in the vocational student population.

TABLE VII: Vocational Student Organizations and Membership, 1984–88.

Student Organization	Chapters					Members				
	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988
AIASA	27	34	37	37	41	1,752	2,585	3,486	6,210	6,203
DECA	102	99	91	92	89	4,702	4,359	4,147	4,450	4,034
FBLA	271	265	269	285	293	10,135	10,756	11,064	11,015	10,984
FFA	201	203	190	209	202	11,135	10,776	9,952	9,500	8,565
FHA-HERO	141	124	116	123	131	2,946	2,919	2,672	2,948	2,795
HOSA	47	46	50	41	49	2,052	1,826	1,932	1,761	1,665
VICA	84	83	106	107	106	22,632	22,572	23,863	22,044	22,090
TOTALS	873	854	859	894	911	55,354	55,793	57,116	57,928	56,336

Source: Bureau of Vocational and Adult Education, Pennsylvania Department of Education.

Vocational Education Expenditures Increased in 1986–87

In 1986–87, vocational education expenditures reached $478 million. This represented an increase of almost 8 percent more than the $443 million expended in 1985–86. State and local funds accounted for 92 percent of the expenditures for vocational education in Pennsylvania.

TABLE VIII: Vocational Education Expenditures, by Level, 1981–87.

	FY 81		FY 82		FY 83		FY 84		FY 85		FY 86		FY 87	
	$ (millions)	%	$ (millions)	%	$ (millions)	%	$ (millions)	%	$ (millions)	%	$ (millions)	%	$ (millions)	%
Federal	32	8	33	8	32	8	35	8	33	8	40	9	39	8
State	225	61	242	62	265	63	270	63	83	65	284	64	312	65
Local	112	31	115	30	122	29	124	29	5	27	119	27	127	27
TOTALS	369	100	390	100	419	100	429	100	431	100	443	100	478	100

Source: 1980–81 through 1985–86 *Accountability Reports* and *Vocational Education Statistics*, 1986–87; Pennsylvania Department of Education, Bureau of Information Services.

Vocational Education Special Populations Enrollments Declined

The trend for declining enrollments of various special populations continued for the school year 1986-87. This corresponds with an overall reduction in vocational enrollments for the year. However, more than 88 percent of all vocational enrollments are in the special populations category: females, 52.2 percent; minorities, 13 percent; disadvantaged, 18 percent; and handicapped, 5 percent.

Of all secondary students enrolled in a vocational program, 55.8 percent were female, 17.5 percent were minorities, 29.8 percent were disadvantaged and 9.4 percent were handicapped. Fifty-four percent of all postsecondary students enrolled in a vocational program were females and 11.1 percent were minorities.* In adult vocational education programs, 57.6 percent were females, 8.6 percent were minorities, 5.4 percent were disadvantaged and 0.4 percent were handicapped.

TABLE IX: Enrollments in Vocational Education of Special Populations, All Levels, 1979-87.

	1979-80	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87
Female	215,208	214,050	211,668	198,819	189,958	185,952	176,208
Minority	51,484	52,298	52,565	52,215	52,685	47,632	46,311
Disadvantaged	55,133	54,447	63,906	70,544	77,799	70,219	60,627
Handicapped	14,721	18,021	19,992	20,027	21,322	18,618	17,480

Note: *Postsecondary enrollment figures for disadvantaged and handicapped not available.

Source: Bureau of Vocational and Adult Education, Pennsylvania Department of Education.

Most Secondary Vocational Education Special Needs Students are Mainstreamed Into Regular Programs

Special needs students may be enrolled in a separate vocational education program or in a mainstream program with regular students. In 1986-87, 79.6 percent of the handicapped and 96.4 percent of the disadvantaged students were in a mainstream program.

TABLE X: Secondary Vocational Education Enrollments, Special Needs, by Program Field, 1986-87.

Program Field	Handicapped	Disadvantaged
Secondary Total [1]	15,896	50,323 [2]
Agriculture Education	978	3 ,021
Business Education	804	11,148
Health Occupations Education	426	1,538
Marketing & Distributive Education	515	2,058
Occupational Home Economics Education	1,847	2,925
Trade & Industrial Education	6,847	17,336
Not Elsewhere Classified	1,702	1,286
Consumer & Homemaking Education	2,777	11,011

[1] Does not include enrollments in correctional institutions.
[2] Includes 1,287 limited English proficiency enrollments.

Source: *Status Report on Education in Pennsylvania, A Statistical Summary,* Pennsylvania Department of Education, 1988.

More Than 90 Percent of 1987 Secondary Vocational Education Graduates Were Successfully Placed

Preliminary data indicate that more than 90 percent of the 1987 secondary vocational education graduates were gainfully placed following graduation. Gainfully placed means that the individual was placed in an occupation related to training, employed in an unrelated occupation, enlisted in the military service, or pursuing further education.

TABLE XI-A: Pennsylvania Vocational Education Follow-Up of Completers of Secondary Programs for 1986–87.

				—Employed, Military, Pursuing Education—									
	Total Surveyed	Total Response		Empl Relat	Empl Unrel	Mil Serv	Purs Educ	Total Gainfully Placed		Unemployed Looking		Unemployed Not Looking	
Agricultural Education	2,000	810	40.5%	238	270	92	143	743	91.7%	38	4.7%	29	3.6%
Business Education	15,268	6,142	40.2	2,068	1,175	211	2,121	5,575	90.8	371	6.0	196	3.2
Health Occupations Education	1,555	682	43.9	263	123	8	192	586	85.9	54	7.9	42	6.2
Marketing & Distributive Education	2,267	807	35.6	272	207	48	172	699	86.6	75	9.3	33	4.1
Occupational Home Economics Education	1,902	693	36.4	255	173	34	101	563	81.2	86	12.4	44	6.3
Trade & Industrial Education	14,797	6,038	40.8	2,309	1,663	606	948	5,526	91.5	360	1	142	2.4
Not Elsewhere Classified	2,460	850	34.6	405	192	66	123	786	92.5	34	4.0	30	3.5
PENNSYLVANIA TOTAL	40,249	16,022	39.8	5,810	3,803	1,065	3,800	14,478	90.4	1,028	6.4	516	3.2

Source: Bureau of Information Services, Pennsylvania Department of Education.

Adult Vocational Education Completers Achieved a Successful Placement Rate of More Than Eighty Percent

According to preliminary survey data, more than 80 percent of Pennsylvania adult vocational education completers for 1986-87 were successfully placed following graduation. Of those, 63 percent were placed in jobs related to their training, 30 percent were in occupations unrelated to their training, and seven percent enlisted in military service or pursued higher education.

TABLE XI-B: Pennsylvania Vocational Education Follow-Up of Completers of Adult Programs for 1986-87.

				—Employed, Military, Pursuing Education—									
	Total Surveyed	Total Response		Empl Relat	Empl Unrel	Mil Serv	Purs Educ	Total Gainfully Placed		Unemployed Looking		Unemployed Not Looking	
Agricultural Education	33	13	39.9%	5	5	0	0	10	76.9%	1	7.7%	2	15.4%
Business Education	1,182	619	52.4	264	195	2	34	495	80.0	58	9.4	66	10.7
Health Occupations Education	1,750	993	56.7	775	84	3	27	889	89.5	42	4.2	62	6.2
Marketing & Distributive Education	65	20	30.8	2	13	0	2	17	85.0	0	0.0	3	15.0
Occupational Home Economics Education	315	91	28.9	24	24	1	5	54	59.3	23	25.3	14	15.4
Trade & Industrial Education	2,563	1,124	43.9	449	410	7	79	945	84.1	95	8.5	84	7.5
PENNSYLVANIA TOTAL	5,908	2,860	48.4	1,519	731	13	147	2,410	84.3	219	7.7	231	8.1

Source: Bureau of Information Services, Pennsylvania Department of Education.

Earnings of Employed Vocational Education Completers Vary By Sex, Level and Program Area

Earnings of 1986 vocational education graduates exhibit the same disparities in income reflected in the general economy. Earnings of males exceeded those of women in almost every occupational area and level of preparation. For males and females, completers of adult vocational programs had the highest income.

TABLE XII: Earnings of Employed Vocational Completers by Sex, Level and Program Area, 1986–87.

	Average Hourly Salary	
	Female	Male
SECONDARY	$4.94	$5.78
Agriculture Education	4.10	5.09
Business Education	5.15	5.18
Health Occupations Education [1]	4.78	4.67
Marketing and Distributive Education	4.18	5.30
Occupational Home Economics Education	4.14	5.01
Technical Education	5.18	5.73
Trade and Industrial Education	4.55	5.95
Not Elsewhere Classified	4.79	5.99
ADULT	6.65	8.73
Business Education [1]	6.18	9.84
Health Occupational Education	6.82	7.09
Marketing and Distributive Education [2]	—	7.81
Occupational Home Economics Education [3]	4.48	5.65
Technical Education	6.89	9.58
Trade and Industrial Education [1]	9.26	8.76

The average hourly salary was computed from salaries reported in a survey of graduates by respondents employed 35 or more hours per week in a field related to their training.

[1] Less than 30 male respondents
[2] Less than 30 respondents
[3] Less than 30 female respondents

Note: No data collected for postsecondary programs for 1986.

Source: *Vocational Education Statistics, 1986–87,* Pennsylvania Department of Education, Harrisburg, 1988; p. 29.

More Than 13,000 JTPA Clients Received Education Services

Job Training Partnership Act (JTPA) clients receive training in area vocational-technical schools, comprehensive high schools and community colleges on a contractual basis with Private Industry Councils. These vocational education agencies are given preference in supplying vocational training to JTPA clients which is funded by the Governor's Special Grant for Education (8% Funds) of JTPA.

TABLE XIII: JTPA Enrollments and Completers by Program Area, 1986-87.

	Enrollments	Completers
GRAND TOTAL	13,667	8,949
AGRICULTURE EDUCATION—TOTAL	19	15
Horticulture	19	15
BUSINESS EDUCATION—TOTAL	712	482
Accounting, bookkeeping, and related programs	84	51
Business data processing and related programs	18	13
Business data programming	17	8
Computer and console operation	52	30
Data entry operation	133	87
General office and related programs	127	89
Secretarial and related programs	69	48
Secretarial, executive	7	5
Secretarial, legal	11	10
Secretarial, medical	70	47
Stenographic	32	18
Word processing	63	60
Other business education	29	16
HEALTH OCCUPATIONS EDUCATION—TOTAL	1,304	820
Dental services	61	45
Diagnostic and treatment services	43	27
Medical assisting	48	41
Medical laboratory technology	26	10
Mental health/human services	70	61
Nursing	271	149
Nursing related services	223	191
Practical nursing	549	285
Other health occupations education	13	11
MARKETING AND DISTRIBUTIVE EDUCATION—TOTAL	31	26
Hotel/motel management	23	20
Other marketing and distributive education	8	6
OCCUPATIONAL HOME ECONOMICS EDUCATION—TOTAL	244	170
Child care services	28	16
Food production, management, and services	196	141
Other occupational home economics education	20	13

TABLE XIII (Continued)

	Enrollments	Completers
TRADE AND INDUSTRIAL EDUCATION—TOTAL	742	513
Building and property maintenance	26	19
Carpentry	11	8
Computer and information sciences	29	12
Cosmetology	20	14
Data processing	43	30
Drafting occupations	51	32
Electrical and electronic technology	92	65
Electrical and electronics equipment repair	55	41
Electrical and power transmission installation	13	7
Electromechanical instrumentation & maintenance technology	40	33
Graphic and printing communications	35	20
Heating, air conditioning, and refrigeration mechanics	61	46
Industrial equipment maintenance and repair	40	23
Legal assisting	11	7
Machine shop	62	52
Meatcutting	12	7
Millwork and cabinet making	25	14
Truck and bus driving	9	9
Vehicle and mobile equipment mechanics and repair	50	30
Welding	5	5
Other trade and industrial education	52	39
NOT ELSEWHERE CLASSIFIED—TOTAL	10,615	6,923
Adult basic education	4,139	2,581
English as a second language	398	301
General education development	5,500	3,656
Other not elsewhere classified	578	385

Note: Participants in programs which extended beyond June 30, 1987 are not included in this table.

Source: Pennsylvania Department of Labor and Industry.

Customized Job Training Programs Provided Training For 156 Employers

In 1987-88, Pennsylvania's Customized Job Training (CJT) Program served 156 Pennsylvania employers. More than 19,000 persons participated in CJT funded projects. These projects provided training for new employees and for the upgrading and/or promotion of experienced employees.

The CJT program is fully supported by state funds. Training is provided in classrooms, shops/laboratories, and businesses by AVTS's, community colleges, and other service providers. A large variety of occupational areas were served by the CJT program in 1987-88, including assembly line workers, forklift operators, general laborers, purchasing clerks, welders, electronics technicians and organic chemists.

TABLE XIV: Summary of Pennsylvania's Customized Job Training Program, 1982-88.

	New Jobs	Promotions or Upgrades	Total Trained	Expenditure (millions)	Employers Served	Projects Funded
1982-83	1,740	421	2,161	$ 1.9	50	85
1983-84	1,328	1,317	2,645	$ 4.6	58	111
1984-85	1,739	5,424	7,163	$ 6.1	105	124
1985-86	3,052	12,919	15,971	$11.9	162	164
1986-87	4,436	25,270	29,706	$13.5	153	162
1987-88	4,826	14,627	19,453	$13.5	156	198
TOTALS	17,121	59,978	77,099	$51.5	684	844

Note: Some companies participated in more than one training project.

Source: Pennsylvania Department of Education.